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Questions and Answers on
"Field Service Regulations
Part I (Operations) 1909"

COMPILED BY
CAPTAIN H. R. GALL

LATE 5TH FUSILIERS.

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CHAPTER I.

THE FIGHTING TROOPS AND THEIR CHARACTERISTICS.

1.--Application of the General Principles to the Leading of Troops.

QUESTIONS.

1. Success in war depends on moral and physical qualities. Which of these factors is the most important to attain ?

2. Besides moral and physical qualities what other factors are essential in order that a body of troops may be used with effect when required ?

3. Is the fact that an army is well organised and disciplined sufficient to ensure success ?

4. Can the application of the principles of war be made subject to rules ?

ANSWERS.

1. Physical qualities though essential to success in war are not in themselves sufficient to

ensure it. The development of moral qualities is of supreme importance. When comparing the two, Napoleon said: "The moral is to the physical as three to one."

2. Organization and discipline.

3. It must be skilfully led, and constantly practiced in all that relates to war. The Prussian army, when Frederick the Great succeeded his father, was a splendid machine; all it needed was the genius of that great commander to turn it into an engine of war of the first magnitude.

4. The correct application of the principles of war to circumstances is the outcome of sound military knowledge, built up by study and practice; they cannot be made subject to rules. Great commanders, with few exceptions, have been notable students of the science of war in all its details. The Duke of Wellington attributed his success as a general to the fact that before he led an army he had studied how to feed it.

2.—The Characteristics of the Various Arms.

QUESTIONS.

1. How only can the full power of an army be exerted?

2. What must the members of the various

arms composing an army make themselves acquainted with to ensure their combination?

3. Briefly explain to what extent the various arms composing an army are dependent on each other.

4. Is there any exception to the general rule that every force which takes the field should be composed of all arms?

5. Should detached forces be composed of all arms?

ANSWERS.

1. When all its parts act in close combination.

2. The characteristics of the other arms.

3. Infantry needs artillery to enable it to obtain superiority of fire and to close with the enemy. Without mounted troops the other arms cannot move in security from surprise, and are unable to reap the fruits of victory. Horse artillery assists cavalry to combine shock action with fire. Artillery and engineers are only effective in conjunction with the other arms.

4. In mountainous or forest country cavalry and field artillery may be unable to act.

5. Yes, in due proportion.

3.—Cavalry and other Mounted Arms.

QUESTIONS.

1. Why has cavalry at the present time a more extended sphere of action than formerly?

2. What is the action of mounted infantry when acting with cavalry?

3. When co-operating with other arms than cavalry, what is the special characteristic of mounted infantry?

4. What kind of country is best suited for the employment of cyclists?

5. What are the special characteristics of cyclists compared with those of other mounted troops?

ANSWERS.

1. Because it is now armed with a long-range rifle and need no longer be stopped by a few infantry posted behind trees or a hedge. The old carbine was unable to compete with the long-range rifle.

2. Fire action, by which it can assist cavalry to combine fire with shock.

3. Its mobility enables a commander by means of his mounted infantry to turn to account opportunities which he would be unable otherwise to seize.

4. Enclosed country where roads are good and numerous.

5. Cyclists can travel longer distances and more quickly than horsemen; they can develop more fire in proportion to their numbers, as they do not require horse-holders. On the other

hand they are largely dependent on the number and condition of the roads.

4.—Artillery.

QUESTIONS.

1. What is the function of artillery?
2. What has modified the extent to which artillery can assist the other arms by preparatory action?
3. What power is conferred on a commander by quick-firing guns?
4. Why is the concentration of guns no longer necessary to ensure control and concentration of fire?
5. Why should each kind of ordnance be allotted its special rôle in action?
6. How should horse artillery be employed?
7. What is the difference between field artillery and horse artillery?
8. What kinds of ordnance are included under the head of field artillery?
9. What is the special function of field artillery?
10. Against what objectives are howitzers specially adapted?
11. Why should howitzers be used to support the final attack?
12. When howitzers use high explosives, what usually forms their target?

6 *QUESTIONS AND ANSWERS ON*

13. What are the characteristics of mountain artillery?

14. What are the characteristics of heavy artillery?

15. What are the principal duties of heavy artillery in the field?

16. When may siege artillery brigades be allotted to a field army?

17. To what special localities are garrison companies allotted?

18. How is the armament of garrison artillery companies divided?

19. What are the guns of *fixed armament*, and how are they respectively intended to be used?

20. How are the guns of the *movable armament* generally allotted?

21. Is there any other function besides that of engaging the enemy appertaining to heavy artillery?

ANSWERS.

1. To assist the other arms in breaking down hostile opposition.

2. The invisibility which smokeless powder confers.

3. The power to develop a destructive fire with great rapidity for brief periods only owing to the risk of exhausting the available ammunition.

4. Improved means of communication permit artillery commanders to exercise control over the fire and movements of dispersed artillery.

5. The effective combination of fire of all the various kinds of artillery available is necessary if that arm is to develop its full power.

6. To prepare and assist the cavalry attack by directing its fire against the opposing cavalry. Subsequently it may be required to *support* the combined action of the other arms.

7. Field artillery is less mobile than horse artillery, but has greater shell power.

8. Guns and howitzers.

9. To assist the infantry in every way in establishing a superiority of fire over the enemy.

10. For the attack of shielded guns, or of an enemy behind cover or in entrenchments.

11. Because they can continue firing until the infantry has almost reached the objective.

12. Buildings, head cover, parapets, and walls.

13. Mountain artillery is suitable for operations in close, broken or hilly country, and in open country has great facilities for taking cover. It can be used in support of infantry at shorter range than either horse or field artillery; it is, however, the weakest in shell power.

14. It can fire accurately at long ranges and has great shell power.

15. To engage shielded artillery with oblique fire, to enfilade cover which the lighter guns can only reach with frontal fire, to search distant localities, to destroy buildings occupied by the enemy, and in the final stage to support the assault by fire converging on the most important points.

16. For special duties in connection with fortress operations.

17. To coast defences.

18. *Into the guns of the fixed armament and of the moveable armament.*

19. (i). Heavy and medium guns intended to encounter vessels larger than torpedo-boat destroyers.

(ii). High angle fire guns, intended by deck attack to prevent bombardment at ranges at which the side armour of ships is beyond the penetration of other heavy guns.

(iii). Light quick-firing guns for use chiefly in case of torpedo attack.

20. Generally for the defence of land fronts, or for use in case of attempted landings, but, they may also be used as auxiliary to fixed armament.

21. It transports small arm and artillery am-

munition from the point where it is delivered by the lines of communication, to the points where it is required by the units of the field army.

5.—Engineers.

QUESTIONS.

1. How are engineer field troops employed?
2. What are the duties of engineer field troops in a division?
3. What are the functions of the telegraph company of engineers in a division?
4. To what part of an army are wireless telegraph companies, cable telegraph companies, and air line companies attached, and with what object?
5. Under whose control are balloon companies and bridging trains?
6. For what special duties are engineer fortress companies provided?
7. What are the functions of railway companies?

ANSWERS.

1. To assist mounted troops in the passage of rivers, and in the improvement of means of communication. They also place localities into a state of defence, and destroy bridges, railways, and telegraphs.
2. The construction of works of defence, and

improvement and construction of roadways and bridges. They also assist in the preparation and maintenance of watering arrangements.

3. The maintenance of such communications as may be ordered by the divisional commander between his head-quarters and the troops under his command.

4. They form part of the army troops to enable the commander-in-chief to maintain communications with the various parts of the army. A wireless telegraph company also forms part of a cavalry division to enable it to maintain communications with army head-quarters.

5. Under that of the commander-in-chief so that they may be allotted by him, where they are most needed.

6. For duties in connection with siege operations.

7. The maintenance, construction, and working of railways.

6.—Infantry.

QUESTIONS.

1. Compare the characteristics of infantry with those of cavalry and artillery.

2. When should rapid fire be used by infantry ?

3. What is essential to the full development of infantry fire action ?

4. What may be said to comprise the essence of infantry tactics ?

5. Besides fire action what is essential to the delivery of a spirited attack by infantry ?

6. What is necessary in order to drive a resolute enemy from the field of battle ?

ANSWERS.

1. Infantry is slower, and the distance it can cover in a day is limited ; on the other hand it can move over almost any ground. Its action is less effected by darkness, it finds cover more readily, and moves under fire with less loss. Its action is either fire or shock, and it can engage the enemy either at a distance or hand-to-hand with the bayonet.

2. Only when the occasion warrants the expenditure of ammunition which it involves.

3. Fire control.

4. Breaking down the enemy's resistance by the weight and direction of its fire, and then completing his over-throw by assault.

5. A desire to close with the enemy.

6. Assault, or the immediate threat of it. Good troops under cover, unless *enfiladed*, can seldom be forced to retire by fire alone. In the Franco-German war of 1870-71, the French

army was demoralized, hence the fable about fire action having superseded shock. In the Turco-Russian of 1877-78, the bayonet was freely used on both sides and no Turkish positions were captured by fire action alone. Again in the Russo-Japanese war the bayonet was constantly brought into play. Troops who cannot face a bayonet charge are bound to be beaten if opposed to those who are always prepared to deliver a resolute assault regardless of the probable loss which it entails. Resolutely defended entrenchments can only be captured at the point of the bayonet. War has not changed, it has become intensified.

7.—Machine Guns.

QUESTIONS.

1. What is the chief characteristic of the machine gun?
2. Why is it so important that the fire of machine guns should be carefully controlled and regulated.
3. What is an important factor in the employment of machine guns?
4. Should machine guns be massed?
5. What are generally considered the best ranges for machine guns?

ANSWERS.

1. The power of delivering a volume of concentrated fire rapidly directed against any desired object.

2. Because of the expenditure of ammunition involved.

3. Surprise, therefore the guns should be concealed and wherever possible provided with cover from fire.

4. No. The massing of machine guns in action is likely to attract hostile artillery. For this reason, it is better to employ them in pairs in support of the particular body of troops to which they belong.

5. Effective infantry ranges (1,400 to 600 yds.), but when good cover from view and fire exists they may be usefully employed at close infantry ranges (600 yds. and under).

CHAPTER II.

INTER-COMMUNICATION AND ORDERS.

8.—Responsibility for Maintaining Communication.

QUESTIONS.

1. What is the main factor in the necessary co-operation between the various parts of an army?

2. What are all subordinate commanders held responsible for keeping not only their respective superiors but also neighbouring commanders informed of?

3. Whose duty is it to arrange as far as possible for the means of communication with, and between their subordinates being established and kept up?

4. Does the fact that it is the special duty of commanders to arrange for communications, absolve subordinates, from the duty of seeing that they are provided?

5. With a view to facilitating the receipt of

messages what should all commanders of brigades and larger formations establish ?

6. How should the great facilities for communication that are often available under modern conditions be used ?

ANSWERS.

1. The constant maintenance of communications between them.

2. The progress of events and important changes in the situation as they occur.

3. It is the duty of all commanders.

4. No it does not, nor from responsibility for improvising the best arrangements possible when regular means of communication are not available.

5. A head-quarters.

6. In such a manner as not to cripple the initiative of subordinates by unnecessary interference, or by habitual counter-orders. The Germans have a saying: "Order—Counter-Order—Disorder."

9.—General Rules regarding the preparation and despatch of Orders, Reports, and Messages.

QUESTIONS.

1. What are the forms of communication in the field ?

2. Should they be verbal or written ?

3. What is the diction to be observed in the framing of orders, reports, and messages ?

4. How are the hours written ?

5. How should a night be described ?

6. How are places and persons to be written ?

7. How are units described ?

8. If a map is referred to, how are the position of places denoted ?

9. How is a position best described ?

10. How are the banks of a river described ?

11. Is the use of the words "right" and "left" commonly resorted to ?

12. Unless otherwise stated when is a force supposed to have reached a place ?

13. Are all orders, reports, or messages, to be signed by the sender ?

14. Are copies of all orders and messages sent to be kept by the sender ?

15. What form and cover should be used when obtainable for field messages and reports ?

16. What is the principle underlying the general rules regarding the preparation and despatch of orders, reports, and messages ?

17. Who is responsible that proper steps are taken to ensure the safe and timely delivery of a communication ?

18. How should important communications be sent ?

19. How are secret communications written ?

20. Is it advisable to encipher one part of a message, leaving the remainder in clear?

ANSWERS.

1. Orders, reports, and messages.

2. They would as a general rule be written. When issued verbally, or sent by signal, they will be confirmed in writing on the first opportunity.

3. Orders, reports, and messages, should be simply worded, clearly expressed, concise, and free from any possibility of misunderstanding. Anything of an indefinite or conditional nature, such as "dawn," "dusk," "if possible," "if practicable," "should," "may," is to be avoided.

4. The hour of 12 will be followed by "noon" or "midnight" written in words. Other hours as usual, thus: 4.30 a.m. or 9.15 p.m.

5. Thus: Night 29th/30th Sept.; or Night 30 Sept./1 Oct.

6. In block capitals, *e.g.*, **LONDON** or **WELLINGTON**.

7. By their Army List abbreviations.

8. Either by the points of the compass, *e.g.*, "wood," 600 yards **S.E.** of "**TETSWORTH**," or, when no points of reference are available by actual compass bearings, *e.g.*, "hill 1,500 yards true bearing 272° from **CHUBHAM** Church," or by descriptions, *e.g.*, "cross roads half mile **S.W.** of the second **E** in **HASELEY**."

9. From right to left looking in the direction of the enemy.

10. "Right" or "left" bank always it being assumed that the writer is looking down stream.

11. No. Indefinite and ambiguous terms should be most carefully avoided, unless it is quite clear to what force they refer.

12. When the head of the *main body* has arrived there.

13. They must always be signed clearly by the sender, his rank, appointment, and the force he is with being stated.

14. Yes, a copy of all orders will be kept by the sender, the copy and the original being endorsed with the method, and hour of issue or transmission, *e.g.*, "personally" to general staff officers of 1st and 2nd divisions at 11.20 a.m., or "wired" to G.O.C. 2nd and 3rd cavalry brigades at 2.30 p.m.

15. The Field message book (Army Book 153) and envelope (Army Form C 398) should be used when obtainable.

16. That *every precaution should be taken to assist the recipient of an order, report, or message in grasping his instructions with a minimum of trouble and delay.*

17. The authority who despatches it.

18. By more than one means.

19. In cipher, unless there is urgent reason

to avoid loss of time by enciphering and deciphering.

20. It is seldom desirable to do so, owing to the danger of the portion in clear affording a clue to the remainder, and leading to the discovery of the cipher in use.

10.—General Arrangement of Orders.

QUESTIONS.

1. What forms do the orders of a commander usually take?

2. What special orders will be occasionally necessary?

3. How are orders divided?

4. Where should the subject of each paragraph be briefly noted, and why is this done?

5. Are explanations to be given of what is ordered?

ANSWERS.

1. (i) Standing orders.

(ii) Operation orders.

(iii) Routine orders.

(iv) Messages.

2. Orders of the day; and special instructions may be required, in case of detached forces, instead of operation orders.

3. Into numbered paragraphs, each dealing with a separate subject.

4. In the margin, to facilitate reference.
5. Only in exceptional cases.

II.—Standing Orders.

QUESTIONS.

1. What is the object of standing orders ?
2. Why should standing orders be confined to essentials, and added to as circumstances require ?
3. Who is responsible that any alteration in standing orders is notified to the troops ?
4. How many copies of standing orders should each squadron, battery, or company, and officer have ?

ANSWERS.

1. (i) To adapt existing regulations to local conditions.
(ii) To save frequent repetitions in operations and routine orders.
2. Because unless they are carefully revised and kept up to date, standing orders may lead to misunderstanding.
3. The authority who issues them.
4. At least six copies to each unit, and one copy to each officer.

12.—Operation Orders.

QUESTIONS.

1. What do operation orders deal with ?
2. Are the services of maintenance, such as

supply, transport, ammunition, medical, etc., included in operation orders, and if so, to what extent ?

3. To whom are detailed orders to the departmental services issued ?

4. What should an operation order contain ?

5. What is the general principle to be adopted in all operation orders ?

6. Why is it dangerous to prescribe to a subordinate at a distance anything that he should be better able to decide on the spot ?

7. Why is the expression, "will await further orders," to be very sparingly used ?

8. Are operation orders always to be carried out to the letter ?

9. Why should the whole of the directions to each portion of a force taking part in a combined operation usually be embodied in one operation order ?

10. *What is the object of an operation order ?*

11. Give an example for the heading of an operation order.

12. What should be stated immediately above the signature to an operation order ?

13. What should be noted at the foot of an operation order below the signature ?

14. To what extent should information regarding the enemy and other bodies of one's own troops be limited in an operation order ? 6389

15. To what extent should the intentions of a commander be stated in operation orders ?

16. In the case of the orders of a subordinate commander, whose intentions should be stated, his own or those of the higher authority ?

17. Should alternative and conditional statements be made in operation orders ?

18. In the body of an operation order what instructions should usually come first ?

19. How is the transport of fighting field units divided ?

20. If any portion of a force is detached for protection or other duties, should its commander be named in orders ?

21. When must the commander always be named ?

22. Are copies of operation orders received by a commander from higher authority to be distributed by him to his subordinates ?

23. Should it be found necessary to supplement the operation orders already issued by further or complete fresh orders to one or more units, what steps should be taken to ensure the continuation of co-operation between all arms and units ?

24. Under what conditions must a formal order be obeyed and never departed from either in letter or spirit ?

25. When is a departure from either the spirit or the letter of an order justified?

26. If a subordinate in the absence of a superior neglects to depart from the letter of his orders when such departure is demanded by circumstances, and failure ensues, who will be held responsible for such failure, the superior commander or the subordinate?

27. Should a subordinate find it necessary to depart from an order, who must he at once inform?

28. What are the rules to be observed by a commander regarding orders for a possible retreat?

29. When are general *instructions* more appropriate than actual orders?

30. When may confidential statements of information and intentions be freely given by a commander to his subordinate commanders?

ANSWERS.

1. All strategical and tactical operations, such as marches, protection, occupation of quarters, reconnaissance, and battle.

2. Only such information as it is necessary to publish to the troops.

3. To those directly concerned.

4. Just what the recipient requires to know and nothing more.

5. That the object to be attained, with such information as affects its attainment, should be briefly and clearly stated ; while the method of attaining the object should be left to the utmost extent possible to the recipient.

6. Because it tends to cramp his initiative in dealing with unforeseen developments.

7. Because it may hinder a subordinate from acting on his own initiative.

8. Not necessarily. Subordinates are trained, not only to work in accordance with brief and very general instructions, but also to take upon themselves, whenever it may be necessary, the responsibility of departing from, or of varying the orders they may have received.

9. To facilitate co-operation.

10. *To bring about a course of action in accordance with the intentions of the commander, suited to the situation, and with full co-operation between all arms and units.*

11.

Copy No. 1.

OPERATION ORDER No. 23,

BY

MAJOR-GENERAL X, COMMANDING 1ST DIVISION.

The King's Head,

Aldershot.

10/3/09.

Reference $\frac{1}{2}$ in. Ordnance Map, No. 34.

12. The place to which Reports are to be sent, and, when necessary, the position of the commander who issues the order.

13. The hour and mode of issue and the individuals to whom issued, as well as the number of the copy issued to each.

14. To what the recipient, or recipients, of the order require to know to assist them in carrying out the tasks imposed on them.

15. *Only so much should be stated as it is really necessary for those to whom the order is issued to know, for the purpose in view.*

16. Those of the authority *actually issuing* the order, arising out of those communicated to him by higher authority, which normally should not be published for information.

17. They are very apt to cause doubt and uncertainty, and should be avoided.

18. Instructions to fighting troops should come first as being most important. Orders to the other services should be limited to what is necessary for them to know.

19. Into two portions, one of which termed the *First line Transport*, always accompanies the unit. The other part is called the *Second line Transport*, and marches where ordered.

20. Yes, provided that it is possible to give such information.

21. In the case of a detachment made up of different units.

22. Their distribution can seldom be justified. Exceptional circumstances may arise in order to save time, but the officer who passes on the copy of an order must realise that he is responsible for making known any information contained in it.

23. All other units or commands affected by the new order should be informed of its purport.

24. So long as the officer who issued it is present, provided, that there is time to report to him, and await a reply without losing an opportunity or endangering the command.

25. If the subordinate bases his decision on some fact which could not be known to the officer who issued the order, he is justified in acting as he believes his superior, if present, would order him to act.

26. The subordinate will be held responsible.

27. The issuer of it, and commanders of any neighbouring units likely to be affected.

28. The orders should always be thought out beforehand, but they should not be communicated to the troops before it becomes necessary to do so, and rarely even, in confidence, to the higher commanders.

29. In the case of detached forces not under the immediate control of the commander who details them.

30. In the case of detached forces.

13.—Issue of Orders.

QUESTIONS.

1. When should superior orders be issued?
2. What is understood by the expression "subordinate commander"?
3. Except in cases of emergency through what channel should orders be issued.
4. In case of emergency how may an order be promulgated?
5. Give an example of how an order that does not pass through the proper official channel should be issued.
6. When detailed orders cannot be issued till late in the evening for early operations next day what course may be pursued?
7. In order to avoid disturbing the rest of subordinates what modification of orders may sometimes be resorted to?
8. What should be stated in a preliminary order?
9. How much of their intentions must commanders communicate to the heads of the administrative services and departments under them?

ANSWERS.

1. In time to enable subordinate commanders in turn to frame and distribute their own orders.

2. A subordinate commander is any commander other than the commander-in-chief.

3. Through the usual official channel.

4. The officer who gives the order will inform the intermediate authority, and the recipient of the order will inform the same authority of the action he is taking.

5. A divisional commander giving an officer commanding a battalion an order direct, will let the brigadier know of the order. The officer commanding the battalion will also inform the brigadier of the action he is taking in accordance with the order of the divisional commander.

6. A preliminary order notifying the time of assembly or of starting may be issued.

7. It may sometimes be advisable, especially when the force is widely scattered, to confine the orders to sufficient instructions to enable units to arrive in correct order at the starting point, and to issue more detailed orders to commanders next morning. The Germans say "that the habitual disturbance of the night's rest is more to be feared than the enemy."

8. When and where the complete order will be issued.

9. They must keep them informed of so much of their intentions as it may be necessary for them to know, in order to carry out their work efficiently.

14.—Routine Orders.**QUESTIONS.**

1. What do routine orders deal with ?
2. When are routine orders issued ?
3. What information should an officer who is sent to head-quarters to receive routine orders be prepared to give, and what should be compared on this occasion ?
4. When a force is stationary what is the latest hour for the issue of routine orders ?
5. Do the restrictions as to the distribution of copies of orders of a superior apply to them ?

ANSWERS.

1. All matters not concerned with operations, such as discipline, interior economy, etc.
2. They will usually be issued daily at fixed hours, the earlier the better.
3. He should be prepared to give any information regarding the command to which he belongs, which the superior may require. Watches will be compared on this occasion.
4. Noon.
5. Routine orders not being of a confidential nature they do not apply to them.

15.—Messages.**QUESTIONS.**

- 1.—How should messages begin ?

2. If the message is in reply to, or has reference to, a message from the addressee, what should be quoted?

3. Should messages that are to be sent by signal be written?

4. In signal messages how should important numbers be written and what kind of type is forbidden?

5. When letter ciphers or important words such as "not" are used how should they be written?

6. How should letter ciphers be arranged?

7. What abbreviations only should be used, and what are to be avoided?

8. What is the rule about the length of signal messages? 6389

ANSWERS.

1. With the rank, name, unit, or appointment, and address of the addressee, followed by the date and number of the sender's message.

2. The number and date of that message will then be quoted.

3. They should be written, and whenever possible, on Army Form C 2121.

4. In words. The use of Roman numbers is forbidden.

5. In block letters.

6. In groups of five letters.

7. Only authorised abbreviations. Complicated phrases are to be avoided.

8. They must be as short as possible, consistent with clearness.

16.—Reports.

QUESTIONS.

1. In reporting on an enemy what is of the first importance ?

2. How should a verbal report be delivered ?

3. How are reports from strategical reconnoitring detachments and from tactical reconnoitring patrols respectively to be conveyed ?

4. What axiom applies to all written and to verbal reports and to sketches ?

5. What should prevent inaccurate or misleading information being sent ?

6. In furnishing information what rules should be observed ?

7. What is a most useful adjunct to a report ?

8. Should a plan sketch be drawn to scale ?

9. How should important points be described on a sketch ?

10. What compass point should always be indicated ?

11. What place should always be clearly indicated on a panorama sketch ?

ANSWERS.

1. Accuracy as regards times, places, the position, approximate strength, branch of the service, formation, and direction of march, etc.
2. Without hurry or excitement.
3. Those from strategical reconnoitring detachments in writing; those from tactical reconnoitring patrols will normally be verbal.
4. *It is more important that the information contained in a report should be relevant and accurate, and should arrive in time to be of use, than that the report should be long or elaborate.*
5. Common sense.
6. A distinction must be clearly drawn between what is certain, and what is presumed or inferred. The source of information should be given, and the reasons for surmises. Negative information and the confirmation of reports already sent are of importance.
7. A plan or panorama sketch.
8. Roughly to scale.
9. In words or figures, *e.g.*, width of a road or stream, whether a railway is single or double, etc.
10. The true north.
11. The place from which such a panorama sketch is executed, and the direction in which the sketcher is looking.

17.—Means of Communication.

QUESTIONS.

1. How is the communication of orders, reports, and messages in the field effected ?
2. What means of communicating are included in the term " signal " ?
3. How is all signal work in the theatre of operations when it happens to be in a friendly country carried on ?
4. When are telegraph, and telephone lines and offices taken over by the army ?
5. In a hostile country how is the technical personnel for telegraphing and telephoning provided ?

ANSWERS.

1. By means of the telegraph, wireless telegraphy, telephone, balloon, visual signalling, flying machines, orderlies, relays, or the post.
2. Telegraphs, wireless telegraphs, telephones, and balloon or visual signals.
3. The existing civil personnel will usually carry on the work subject to military control.
4. When necessary.
5. From military sources.

18.—Signal Traffic.

QUESTIONS.

1. When is communication not to be sent by signal or orderly ?

2. What is the order of precedence in which messages are to be sent ?

3. Should extraordinary pressure arise who decides the precedence of outgoing messages adhering as far as possible to the order of precedence as laid down ?

4. Who only are authorized to frank a message " Priority ? "

5. To whom should the names of officers having authority to frank a message be supplied, and where should they be published ?

6. By whom must messages other than " Priority " messages be franked ?

7. Are copies of operation orders and other communications of a secret or confidential nature to be kept at signal stations ?

8. Are persons allowed within hearing distance of signal instruments ?

9. Whose duty is it to keep a copy of a message should one be required ?

10. To whom should the establishment of a signal station be at once reported ? Should a similar report be made when communication is interrupted or delayed ?

11. Who are responsible for the protection and the prevention of " tapping " of telegraph and telephone lines ?

12. In a hostile country who should, if necessary, be made responsible for the preservation of telegraph and telephone lines ?

13. Who is responsible for bringing to the notice of commanders any particular points in the telegraph and telephone lines which require special protection ?

14. To what place should every interruption caused by troops be reported as soon as discovered, and what points should be specified in the report ?

ANSWERS.

1. When transmission by post would serve the purpose.

2. (i) Urgent service messages affecting the working of the line.

(ii) Messages O.H.M.S., marked "Priority."

(iii) Service messages connected with the working of the line.

(iv) Messages O.H.M.S., not marked "Priority."

3. The officer in charge of signal traffic, or, should no officer be in charge, an officer detailed by the commander on the spot.

4. No one but the commander on the spot, or an officer expressly authorized by him.

5. The names of officers having this authority should be supplied to the local signal stations and published in local orders.

6. By the signature of one of the following officers :—

(i) A commander.

- (ii) An officer of the staff.
- (iii) The head or representative of an administrative service or department.
- (iv) An officer holding a special appointment.
- 7. Careful arrangements must be made at signal stations for their safe custody.
- 8. Not without written permission from the commander on the spot, or from the Director of Army Signals or his representative.
- 9. It is the duty of the sender.
- 10. The officer or man in charge will at once inform the senior commander or general staff officer in the vicinity. Similarly, a report will be made when communication is interrupted or delayed.
- 11. Commanders in the district through which they pass.
- 12. The inhabitants of each locality in the neighbourhood of the lines, for the preservation of a particular section of the line.
- 13. Telegraph and telephone officials.
- 14. To the nearest signal station, the place, time, and description of interruption being specified.

19.—Captive Balloons.

QUESTIONS.

- 1. Who direct the operations of captive balloons and kites?

2. How do captive balloons communicate with the general staff, or with the officer to whom they are to report ?

3. For what purposes may signal balloons be used with advantage other than for observation ?

4. What is the special advantage of signals from balloons ?

ANSWERS.

1. They receive their instructions through the general staff.

2. By signal, preferably by telephone.

3. They can be used with advantage to put up simple signals for definite movements, *e.g.*, for a combined attack.

4. They are visible to the troops simultaneously over large areas.

20.—Orderlies.

QUESTIONS.

1. Who are responsible for the distribution of orderlies, and how may they travel ?

2. How do the administrative services and departments provide themselves with orderlies ?

3. Describe briefly the instructions for the bearer of a verbal and of a written order of message respectively.

4. Should a messenger be given a receipt for

his message, what will serve for the purpose, and what must be noted on the receipt ?

5. Why should orderlies bringing messages from advanced bodies of troops carry them open ?

6. Who instructs the messenger as to his rate of speed, the route he is to take, and where he is to report himself on his return ?

7. Where should the speed at which a messenger is to travel be marked ?

8. How will commanding officers assist the transmission of reports and messages by orderlies ?

ANSWERS.

1. The general staff: orderlies may be mounted on animals, motor cars, or bicycles, or on foot.

2. They provide themselves with orderlies from their own personnel, or by the enrolment of civilians.

3. The bearer of a verbal order or message should repeat it to the issuer and understand its purport ; whilst the recipient should commit it to writing, and request the bearer to sign it, if it is of any importance. The bearer of a written order or message should know its purport, in case he loses the despatch or has to destroy it. It is sometimes advisable to give a messenger two messages, one real, the other false, the real one being concealed on his person.

4. Always. The envelope, if there is one, will serve as such. The recipient must note the hour and date of receipt on it, sign it, and return it to the bearer.

5. Because commanders of troops, whom such orderlies may pass on their way to the addressee, are authorised to read the message, which they should initial.

6. The sender.

7. On the envelope.

8. By all means in their power, supplying a new messenger, if necessary, or replacing tired horses by fresh ones.

21.—Relays.

QUESTIONS.

1. When and by whom are relay posts organised on the route?

2. What do relay posts consist of?

3. When motor vehicles are employed what should be arranged for along the route?

4. How is a relay post recognised?

5. Is a register of the messages forwarded kept at each post, if so, what is noted in each case?

6. When may a garrison for a post be necessary?

7. Who lays down when relay posts may be withdrawn?

8. Who appoints a commander for the whole line of relay posts ?

ANSWERS.

1. When the distances that messages have to be carried between any two points are considerable relay posts will be organized by the general staff.

2. Generally of a few mounted men, cyclists, motor cyclists, or motor cars.

3. A supply of petrol.

4. The position of the post will be clearly marked by day and by night.

5. A register of the messages forwarded will be kept at each post, the date, hour of receipt, speed enjoined, and name of messenger being noted in each case.

6. If the inhabitants are hostile.

7. The commander who establishes the line.

8. The commander who establishes the line.

CHAPTER III.

MOVEMENTS BY LAND AND SEA.

22.—The Strategical Concentration.

QUESTIONS.

1. What is the process by which an army is brought into the theatre of operations called ?
2. How is the strategical concentration of an army effected ?
3. What conditions influence the choice of points of disembarkation of an invading army ?
4. In the case of trying to effect a landing in a hostile country, what will usually be the first objective ?
5. What will influence the choice of ports of disembarkation in the case of a landing in a friendly country ?
6. When a landing is unlikely to be opposed what considerations other than strategical and tactical may be considered ?
7. What precautions must be taken to ensure the strategical concentration being completed without interruption from the enemy ?

8. In choosing the area of concentration what should be considered with regard to the force which is to cover it?

9. When is it quicker to complete the concentration of an army by road than by railway transport?

10. Under favourable conditions, for instance, at a wayside station, on a double line with two platforms, each 100 yards long and with good approaches, how long does a division take to entrain, and how long to detrain, both platforms being used and civil traffic suspended?

11. On a single line what is the increased percentage of time required for a division to entrain over that of a double line?

12. When units have to march from the point of detrainment to the area of concentration, how should the points of detrainment be arranged?

13. What is the advantage claimed for marching units to the area of concentration?

14. Why should units usually be moved at once from the point of detrainment into the area of concentration?

15. When marching troops by road to the area of concentration, what points will a commander have to consider?

16. As soon as the different units have reached the area of concentration, what should be done?

ANSWERS.

1. The strategical concentration.
2. By sea, by rail, by water or by road, or by a combination of these means.
3. They vary greatly with the hostility or friendliness of the country in which the landing is contemplated.
4. The capture of a suitable harbour to serve as a base of operations.
5. The choice of the ports of disembarkation will be influenced by the plan of operations, the nature of the harbour, the amount of wharfage, and the facilities of road and rail communication towards the zone of operations.
6. The order in which units are moved to the area of concentration may depend on the class of ships or rolling stock available, as well as on the strategical and tactical requirements.
7. A suitable force to ensure this must be despatched first, consisting of cavalry supplemented as quickly as possible by the first infantry brigades mobilized, followed by the remainder of the cavalry units, the remainder of the infantry and the artillery being sent forward next.
8. It is important that the composition and duties of the force which is to cover it should be considered.
9. If a large force is to be moved a comparatively short distance.

10. Two-and-a-half days to entrain, and two days to detrain.

11. About 30 per cent.

12. So that the lines of march of the various units do not cross one another.

13. It prepares men and horses for the harder work which follows.

14. To make room for fresh troops arriving.

15. All available roads should be used so as to take the utmost advantage of the resources of the country for the purpose of billeting and subsistence.

16. The various brigades and divisions will be reformed, and all arrangements made to enable the force to move forward with the least possible delay.

23.—The Forward Movement from the Area of Concentration.

QUESTIONS.

1. What does readiness for instant action demand ?

2. What does a force moving on all available roads towards its objective lose the power of rapidly doing ?

3. What are the disadvantages of moving a large force consisting of several divisions or army corps concentrated ?

4. In addition to enabling troops to be de-

ployed rapidly into line of battle, what advantages does marching columns on parallel roads confer?

5. When marching on parallel roads may brigades and divisions be broken up?

6. When a force is not in contact with the enemy and there is no probability of such contact, what considerations should govern its movements?

7. When contact with the enemy is not imminent is it necessary for a large force which is confined to one road to concentrate before and after a march?

8. What arrangements should be made for the billeting of the various commands when on the line of march?

9. What advantages accrue from the observance of the regulations laid down for the billeting of the various commands when circumstances admit of their being adhered to?

ANSWERS.

1. The deployment of the force on all available roads, within the limits of the front on which it is intended to fight.

2. Changing direction.

3. It destroys its mobility, deployment cannot be rapidly carried out, and the difficulties of maintenance are increased.

4. It increases their mobility, the roads are not so much cut up, and facilitates maintenance.

5. Not unless it is absolutely unavoidable.
6. Convenience only need be consulted. Tactical considerations become of less importance in 'arranging marches. The force may move on a wider front, and the fighting strength of the troops can be preserved by seeing that the troops are adequately housed and fed.
7. No; to do so would be to sacrifice marching power.
8. They should be billeted in the neighbourhood of the spot in which they may be on the completion of a day's march, and for resuming the march the next day from such points.
9. Each unit will be able to carry out a full day's march, and the resources of the country in regard to subsistence and billeting are utilized to the utmost.

MARCHES.

24.—General Rules.

QUESTIONS.

1. What is included under the head of *march discipline*?
2. What rule should be observed by orderlies and mounted officers passing to the front or rear of a column on the line of march?
3. Are trumpet or bugle calls allowed on the line of march?

4. What should be done when roads cross one another or bifurcate ?

5. When there is much traffic which is liable to cause a block at any particular point who should regulate it ?

ANSWERS.

1. Everything that affects the efficiency of man and horse during the march.

2. They should take advantage of halts to pass to the front or rear, and avoid passing and repassing infantry more than is absolutely necessary.

3. No, the column should be directed by signal.

4. The general staff will place orderlies to guide troops in the right direction, or the road not to be used may be blocked by some pre-arranged sign such as branches of trees, lines of stones, etc.

5. A representative of the general staff.

25.—March Formations and Distances.

QUESTIONS.

1. When may a broader front than the normal march formation be adopted ?

2. In dusty and hot weather what means should be adopted in order to reduce the fatigues of marching ?

3. What distances will be maintained between the various units on the line of march?

4. When may distances between units be reduced, or even omitted altogether?

5. What tables of reference should staff officers have ready concerning the body of troops they are attached to on the march?

6. Give the table showing the approximate space occupied in column of route by troops with 1st line transport.

ANSWERS.

1. On unenclosed ground.

2. The column may be opened out on each side of the road, the centre of the road being kept clear. Sometimes the distances and intervals between men may be increased by order of the commander of the column.

3. In rear of infantry company ... 6 yds.

„ „ battalion, squadron, battery, or other unit not specified here ... 10 yds.

„ „ cavalry regiment, or brigade R.A. ... 20 yds.

„ „ cavalry or infantry brigade ... 30 yds.

„ „ a division ... 100 yds.

4. When marching by night and by day when an engagement is imminent by order of the commander of the column.

5. Tables showing the length of the body of troops with which they deal in column of route, time taken to pass a given point and to deploy, camping space, etc.

6. It may be taken that all troops, mounted or dismounted, move to the starting point at the rate of 100 yards per minute, and that including distances, the following approximate space is occupied in column of route with 1st line transport:—

Cavalry or mounted infantry in sections or fours.	1 yard per horse in the ranks, + 100 yards.
Cavalry or mounted infantry in half sections or in files.	2 yards per horse in the ranks, + 100 yards.
Infantry in fours	1 yard per 2 men in the ranks, + 200 yards.
Each 1 or 2 horse gun or vehicle takes 10 yds.	
.. 4	15 ..
.. 6	20 ..
.. 2 mule or pony vehicle takes	7 ..
.. pack animal (except camels) in single file takes 3½ yards
.. camel in single file takes 5 yards

} including distances.

26.—Pace.

QUESTIONS.

1. What are the rates of movement of infantry and mounted troops respectively in the field?

2. Why should the rate of marching throughout a column be uniform?

3. How should the pace of mounted troops when marching independently be regulated?

4. If distances are lost on the march how should they be regained ?

5. When may infantry be ordered to quicken their pace ?

6. What is the length of an average march under normal conditions for a large column engaged in extensive operations ?

7. Under favourable conditions what ought small commands of seasoned troops be able to cover per diem ?

8. How should the fatigue of a forced march be reckoned ?

9. If troops are called upon to make a special effort what should they be made to understand ?

10. When only should forced marching be resorted to ?

ANSWERS.

1. For tables of road spaces *see* F.S. Pocket Book.

Rates of movement in the field are approximately as follows :—

Arm.	Yards per minute.	Minutes required to traverse 1 mile.	Miles per hour, including short halts.
INFANTRY—			
Usual pace ...	98	18	3
MOUNTED TROOPS—			
Walk ...	117	15	3½
Trot ...	235	8	7
Gallop ...	440	—	—
Trot and walk ...	—	—	5

2. Because an irregular pace tends to produce alternate checking and hurrying, which is most exhausting to the troops, especially to those in rear of the column.

3. To suit the ground, the men will walk and lead frequently, particularly when ascending or descending steep hills.

4. By order of the commander of the unit, stepping out, doubling or trotting to regain lost distances is forbidden except by order of the commander of the unit.

5. If a defile has to be passed rapidly or some definite object is to be gained.

6. Fifteen miles a day with a rest at least once a week.

7. Twenty-five miles a day.

8. Rather on the number of hours during which the troops are marching without long halts, than on the pace of marching.

9. That it is for a specific object.

10. Only when the expenditure of fighting power thereby entailed is justified by the object to be gained.

27.—Order of March.

QUESTIONS.

1. When there is no possibility of meeting an enemy what considerations should decide the order of march?

2. How must the order of march be decided when within reach of the enemy?
3. Where do artillery brigade and mounted brigade ammunition columns usually march?
4. Where should the balloon company usually march, 1st, when at a distance from the enemy, 2nd, when in proximity to the enemy?
5. Why should the balloon not be inflated until it is required to make an observation?
6. If there is no chance of its being wanted where does the bridging train usually march?
7. Where do spare and led horses march?
8. Where do the engineer field companies march?
9. Where do field ambulances march?

ANSWERS.

1. The comfort of the troops is the first consideration, and convenience only need be consulted.
2. The troops must march in the order in which they will probably be required to come into action in accordance with the general situation, but artillery must be preceded by sufficient infantry to afford it protection.
3. In rear of the fighting troops of their own division or brigade.
4. 1st with the heavy artillery, 2nd it will usually be allotted to the advanced guard.

5. Because its pace when inflated is slow, and it is a conspicuous object.

6. After the supply and transport columns, or even with the transport and supply park.

7. In rear of the first line of transport of the units to which they belong.

8. Those portions of the engineer field companies which are not with the advanced guard will usually march near the head of their own division.

9. They follow their own divisions, and will usually march in rear of the brigade ammunition columns.

28.—Second Line Transport and Supply Columns.

QUESTIONS.

1. What regulates the interval between the second line transport and the main body?

2. In what order does the second line transport of each brigade or of divisional troops march?

3. Where may the water carts and supply vehicles of regimental transport march?

4. Where do transport and supply columns usually march?

5. If the columns carry more than one day's food how should they be divided?

ANSWERS.

1. As this transport is required as soon as the troops reach their destination the smaller the distance that intervenes between the second line transport and the main body the better. On the other hand if an action is probable it must not follow the main body so closely as to hamper its action.

2. In the same order as the brigade, etc., to which it belongs.

3. At the head of the second line of transport, or wherever commanders of divisions think it advisable, they may order the water carts of all or any of the specified units to move with the first line transport.

4. Immediately behind the second line transport.

5. Into sections, the front section containing one day's food for the force.

29.—Divisional Ammunition Columns and Transport and Supply Parks.

QUESTIONS.

1. By whom will the position on the line of march of the divisional ammunition columns and transport and supply parks be regulated?

2. What is the normal position of the divisional ammunition columns and transport and supply parks?

3. Define the expression "General Headquarters" ?

ANSWERS.

1. By the general staff in accordance with the orders of the divisional commander.

2. One day's march in rear of the main body; should an engagement, however, be imminent, the position of these columns and parks may, if necessary, be regulated by army headquarters.

3. An army is composed of two or more divisions. If more than one army is formed the headquarters of the commander-in-chief of the whole are termed General Headquarters.

30.—Starting Point.

QUESTIONS.

1. What is the starting point for troops on the line of march ?

2. If troops are not all quartered together who arranges their movements to the starting point and in fixing a starting point what must be borne in mind ?

3. Should the march begin in the dark how will the starting point usually be marked ?

4. If a force which is scattered in quarters is required to pass a common starting point in the dark, what precautions may be taken ?

5. During the movement to the starting point what troops have precedence on the road ?

ANSWERS.

1. It is the point which the head of the main body is to pass at a certain time and is fixed in operation orders.

2. Each subordinate command must arrange its own movement to the starting point so as to permit its falling into its place in the column of march punctually, and without crossing the line of march of other commands.

3. By signalling lamps or by fires, the method of marking it being mentioned in the operation orders.

4. It will often be advisable to post a chain of men, at distances of about 20 yards, between the assembly grounds of brigades, etc., and the starting point, arrangements being made for collecting the men when they are no longer required.

5. Troops with their first-line transport have precedence on the road of all other transport, which should remain parked on its own ground till the fighting troops are clear, being then moved direct into its place in the column.

31.—Halts.

QUESTIONS.

1. On the "Halt" being signalled when the force is not in contact with the enemy, what takes place?

2. How should commanders of protective troops act when the "Halt" is signalled?

3. On the "Advance" being signalled what happens?

4. How are halts arranged on the line of march?

5. When should halts be made with reference to bridges or other defiles?

6. When are halts of most use?

7. During hot weather, on long marches, what arrangements regarding the animals should be made?

8. If a long halt is contemplated by whom should the halting place be selected?

9. What arrangements should the officer who selects the halting place make with regard to the water supply?

ANSWERS.

1. Every one will halt and fall out on the left side of the road.

2. They will exercise their discretion as to halting at once, or moving forward to occupy

a position which may be of more tactical advantage.

3. The troops will at once fall in and resume the march.

4. A short halt will be ordered soon after the column has started, subsequent halts being arranged at regular intervals at the discretion of the commander of the column.

5. When the head of the main body is at a distance from them.

6. When equipment can be removed to ease the men, teams unhooked, and horses unsaddled.

7. Arrangements should be made for watering animals.

8. A staff officer, accompanied by an engineer and a medical officer, with sufficient police and orderlies, should be sent forward to select halting grounds near good water.

9. He should arrange for the methodical distribution of the water supply, and take measures for its protection until the main body arrives.

32.—Crossing Military Bridges, Fords, Drifts, &c.

QUESTIONS.

1. If a military bridge is to be passed, a river forded, or a defile passed, from whom should commanders of units receive instructions

on special points that are to be observed in crossing ?

2. Why should an officer from each unit remain on the near side of a bridge, drift, etc., until the whole of the unit has passed over ?

3. How should horses be passed over a pontoon bridge ?

ANSWERS.

1. A general staff officer, or an officer selected by the general staff, will be posted on the approach to give commanders of units the necessary instructions.

2. To see that distances are not unduly opened out, and to make such arrangements as may be necessary to prevent troops in rear being checked.

3. Dismounted and led across, except those ridden by drivers, who should remain mounted. The pace is never to be faster than a walk.

33.—Rules for Transport on the March.

QUESTION.

1. State briefly the rules for transport on the march.

ANSWER.

1. Opening out must be checked. Pack animals not loaded until shortly before they

are required to move off. Animals must not be allowed to drink when passing fords unless an organized halt has been arranged for. With mixed transport the fastest class of transport should start first; this course is, however, dangerous if the convoy is liable to be attacked. Over-driving is especially to be guarded against. In each class of transport the slowest team or animal should lead. All non-commissioned officers and men not belonging to the transport personnel, who for any reason may accompany the transport, will march together by units and will be at the disposal of the commander of the escort. All followers and non-combatants will be allotted a definite position. When pack animals are used, each driver must lead his own animals (usually three in number); tying animals in long strings is prohibited. No one other than the driver is to ride on any cart, or transport animal, without a written order from the transport officer. Some empty wagons or spare animals should be in rear. Rules for halts the same as for other troops. Transport should usually be encamped on the further side of a village, bridge, or other defile. It is easier to pass such places whilst still in march formation than to do so, possibly in the dark, at the beginning of the next day's march.

MOVEMENTS BY RAIL.**34.—General Rules.****QUESTIONS.**

1. Who form the channel of communication between the troops and the railway service?
2. How are trains divided?
3. How are guns or vehicles and horses to be transported by rail?
4. What points should be observed in drawing up orders for the despatch of troops by rail?
5. Are troops allowed to occupy railway buildings or use the water supply?

ANSWERS.

1. Railway control officers who may be recognized by a badge marked "R.C.O." worn on the left arm.
2. Into troop trains and freight trains. The latter contain only animals and stores.
3. Guns or vehicles should be in the same trains as the teams, and horses should not be separated from the men who ride or drive them.
4. (i) Date, place of entraining, destination, and railway route to be followed.
(ii) Time of departure of the trains, hour at which troops are to reach the entraining place, and, if necessary, the road they are to use.

(iii) Arrangements for feeding troops and watering animals *en route*.

(iv) Places of assembly near entraining and detraining stations.

5. Not without authority from a railway control officer.

35.—Duties of a Commander of a Troop Train.

QUESTION.

1. State briefly the duties of the commander of a troop train.

ANSWER.

1. He must send an officer ahead to ascertain from the railway control officer the nature of the preliminary arrangements. Detail guard for prisoners, treasure, etc., and find sentries as required. He is responsible that all instructions which he may receive from the railway control officer are observed. Except in case of actual or threatened attack by the enemy, he is not to interfere in the working of the railway service. If attack is anticipated he should ride on the engine. He arranges for forage and obtains lashings for vehicles, etc., from the railway service. He decides, after consulting the railway control officer, whether the troops may leave their carriages. At the place of detraining, he

ascertains the arrangements for detraining and moving off before the troops leave the carriages.

36.—General Rules for Entraining and Detraining.

QUESTION.

1. What are the general rules for entraining and detraining?

ANSWER.

1. They must be carried out systematically under the orders of the commander. The entrainment or detrainment of horses (including officers chargers), guns, wagons and stores, should be conducted simultaneously. Animals, vehicles, and *material* should be loaded up before the entrainment of the men is commenced. For short journeys horses should usually remain saddled and harnessed. For journeys over six hours in length, horses should be unsaddled or unharnessed, and the saddlery or harness packed in vans, unless an attack is anticipated.

37.—Entraining and Detraining Personnel.

QUESTIONS.

1. Previous to entraining how should the men be formed up?

2. Are men allowed to leave the carriages ?
3. Where must feeding, bridling, or saddling up be carried out and why ?

ANSWERS.

1. On the platform opposite to the carriages which they are to occupy, and told off into sections corresponding to the capacity of the compartments provided.
2. Not without permission of an officer.
3. Outside the station and clear of its approaches, on detraining troops will march clear of the station at once.

38.—Entraining and Detraining Horses.

QUESTIONS.

1. How are horses led on to the platform and placed into the trucks ?
2. How should restive horses be entrained ?
3. How should the horses heads face ?
4. When should nose bags be refilled ?
5. How should hay or straw be loaded ?
6. After detraining what becomes of the horses ?

ANSWERS.

1. After stirrups have been crossed, girths slackened, and traces secured, or saddlery and harness removed, the horses are led on to the platform in single file, a quiet horse leading in

each case, each alternate horse being placed at an opposite end of the truck.

2. They should be backed, or dragged in by a surcingle, rope, or blanket placed round the hind quarters.

3. The entrainment should be so arranged that the horses' heads face away from the other lines of rail.

4. *En route.*

5. Separately for fear of fire.

6. They should be led away at once to the place of assembly, draught horses being taken to their guns or wagons, which are then to be taken to the place of assembly.

39.—Entraining and Detraining Guns, Wagons, and Stores.

QUESTIONS.

1. How should guns and wagons be entrained?

2. How must material, provided by the railway service, for emergency camps be loaded?

3. If inflammable stores are carried, in what part of the train should they be placed?

ANSWERS.

1. Guns fully equipped, and wagons with their loads in them. It should be possible to quickly unload them from either side.

2. So that it is immediately available.
3. They should be placed at the rear of the train.

40.—Defence of Railways.

QUESTIONS.

1. With whom does the protection of a railway and of working parties on it rest ?
2. With regard to the protection of a line of railway, how far is the railway service responsible ?
3. When armoured trains are utilized, how should their commanders work in co-operation with the railway service ?
4. Should detailed orders as to their movements be issued by commanders of armoured trains ?
5. Are armoured trains suited for reconnaissance ahead of other troops ?
6. When armoured trains are used to reconnoitre, what should be provided for ?
7. Should armoured trains be exposed to artillery fire ?
8. Describe the usual disposition of an armoured train against rifle fire.
9. What is the principal duty of armoured trains ?

ANSWERS.

1. With the commander of the line of communication defences concerned.

2. It is confined to bringing to the notice of the commanders of communication defences such points on the railway as specially require protection.

3. So that railway traffic may be interrupted as little as possible.

4. No. The object to be attained should be stated, and the method of operation be left to the commander.

5. Armoured trains are unsuited for reconnaissance independently.

6. The security of the line in rear should be provided for.

7. Armoured trains should not be exposed to artillery fire.

8. The train should usually be divided, the guns with one armoured truck as escort being stationed out of rifle fire, while the remainder of the train engages the enemy at close quarters with rifle and machine-gun fire.

9. Providing for the security of a line of railway. They may be employed to connect detached posts and to patrol sections of the line, which are liable to attack at irregular intervals.

MOVEMENTS BY SEA.**41.—General Rules.****QUESTIONS.**

1. Who controls, provides, and protects the sea transport of an army while at sea ?
2. Previously to the despatch of an oversea expedition what are the questions that must be decided between the naval and military authorities ?
3. At the point or points of embarkation and disembarkation how are both the naval and military authorities represented ?

ANSWERS.

1. The Admiralty.
2. (i) The strength and composition of the force and the size of the transports.
(ii) The land transport which will be required. This must be adapted to the object in view and to the local conditions, and largely dependent on this will be :
(iii) The fittings and land appliances required in the transports.
(iv) The ports from which the expedition should start.
3. By one or more officers called, respectively, the naval transport and military landing officers.

42.—Embarkations.**QUESTIONS.**

1. What is the difference when the landing of an oversea expedition is to be effected on a friendly or a hostile shore?

2. What is the order of embarkation of an army and its distribution on board ship governed by?

3. Should the troops be embarked in units complete with their animals and material?

4. If it is not desirable to divide the mounted troops how can they be accommodated by themselves?

5. Where are gun and small-arm ammunition and explosives stowed?

6. How should all small gear be handled?

7. Is it necessary as a rule that vehicles of all arms should be taken to pieces?

8. What is the height to which military vehicles should be loaded?

9. What should be done with poles of wagons?

ANSWERS.

1. In the former case, as the troops would probably disembark at a suitably equipped port, the provision of horse-boats and other special appliances may be unnecessary.

2. By its tactical application on landing, and

the order in which its component parts will be required on shore.

3. Provided, space is not unduly sacrificed, but if special rapidity of disembarkation is important, mounted troops should be divided up by squadrons, batteries, etc., amongst the transports instead of being conveyed in a few separate vessels.

4. In cattle ships.

5. In the magazine.

6. It will be collected, tied together, labelled, and stowed away.

7. No. They can, as a rule, be hoisted in loaded and without being dismounted.

8. The height to which military vehicles should be loaded will in no case exceed 8 feet 6 inches from the ground.

9. Poles of wagons should be lashed to them.

43.—Duties on Board Ship.

QUESTION.

1. Are there any special rules connected with the interior economy and duties of troops on board ship in war and in peace?

ANSWER.

1. They are similar in war and peace, and will be governed by the King's Regulations on the subject.

44.—Disembarkations.

QUESTION.

1. How will the process of disembarking troops at a friendly port be carried out?

ANSWER.

1. In a similar manner to embarkations, and be regulated by the naval and military commanders respectively as required.

CHAPTER IV.

QUARTERS.

45.—General Principles and Rules.

QUESTIONS.

1. What different forms come under the heading of Quarters?
2. When not in immediate proximity to the enemy, which is the usual form of quarters in civilized countries?
3. What are the advantages and disadvantages connected with billeting?
4. How may the disadvantage of dispersion be partially overcome when troops are billeted?
5. What are the advantages and drawbacks generally connected with bivouacs, and when should they be adopted?
6. What advantages are claimed for camps over bivouacs, and when can they be used on service by troops?
7. When may tents be replaced by huts?
8. In the presence of the enemy, what must

determine the form of quarters to be adopted by troops? Explain answer by an example.

9. When not in proximity to the enemy, what are the first considerations?

10. If an engagement is anticipated, how should the larger units be distributed in their quarters whatever that may happen to be?

11. In distributing troops in quarters, what are the rules to be observed?

12. If a column is halted for a single night only, what is the distance that any portion of the troops composing it may be quartered from their line of march next day?

ANSWERS.

1. Quarters take the form of Billets, Close Billets, Bivouacs, and Camps.

2. Billets.

3. They allow of proper rest, and give shelter from the weather, but usually cause dispersion of troops.

4. By resorting to Close Billets, when as many men as possible sleep in houses, the remainder bivouacking.

5. Bivouacs give concentration and readiness, but are trying to the health of men and horses, and should only be resorted to when tactical considerations make it imperative to do so.

6. Camps admit of concentration, and are more healthy than bivouacs, but will only be used by troops engaged in field operations under exceptional circumstances.

7. If a force is likely to remain halted a long time, as for instance in a siege or blockade.

8. *Tactical considerations ; e.g. favourable ground for defence in the event of attack, concealment, facilities for protection, and economy in outposts are of the first importance.* Under these circumstances, the time which it will take to get the troops under arms, and in position to meet the enemy, determines the form of quarters to be adopted. Thus it will often be possible to billet the main body of an army, its covering force being placed partly in close billets and partly in bivouac.

9. The health and comfort of the troops.

10. In the order from front to rear in which they will come into action, provided that when liable to attack, infantry is placed in the more exposed positions, cavalry and the other mounted troops in the less exposed. Artillery, transport and supply columns, ammunition columns, and medical units should always be covered by the other arms.

11 (i) Depôts should be near roads.

(ii) Dismounted units should be nearest the water supply.

- (iii) Staffs and hospitals have the first claim on buildings.
 - (iv) When shelter is limited, cavalry and the other mounted troops have precedence of dismounted troops.
 - (v) Hospitals should be given a quiet spot and the most sanitary position.
 - (vi) Staff and telegraph offices should adjoin each other if possible, and should be clearly marked.
 - (vii) Officers must be close to their men.
12. From one to two miles.

46.—Hygiene and Sanitation in Quarters.

QUESTIONS.

1. Who are held responsible that all orders affecting the health of an army are rigidly carried out?
2. What does neglect of sanitary precautions inevitably result in?
3. If an early start is contemplated, what special precautions should be taken?
4. Name the principal precautions that are to be taken to ensure, as far as possible, an ample supply of pure drinking water.
5. How many gallons of water can be sterilized in an hour by the filter provided for field service? Before using it, what should always be done?

6. What precautions should be taken regarding vessels or tanks in which drinking water is stored?
7. By whom should all water tanks and water bottles be frequently inspected?
8. What should be done to milk before use?

ANSWERS.

1. Every Officer is responsible that these orders are carried out by the troops under his command.

2. *Great loss of life and efficiency.*

3. No man should stir till ordered to turn out. Preliminary arrangements for breakfast should be seen to over night.

4. A certain number of specially trained N.C.O's., and men of the Royal Army Medical Corps are attached to each unit. Men must be prevented from drinking water that is not pure, and must be trained to economise the contents of their water bottles. Water should, if necessary, be boiled or sterilized, and filters must be kept clean, as otherwise they become dangerous.

5. About 200 gallons. The water must always be cleared first, or the filter may become clogged.

6. They should be carefully covered, to keep out dust, etc., and they should be raised off the ground and provided with taps, and they should

frequently be cleaned or scoured with boiling water.

7. By a medical officer.

8. Milk (other than sterilized or condensed) should be boiled before use.

ADMINISTRATION AND DISCIPLINE.

47.—Duties of the Commander of a Brigade Area.

QUESTIONS.

1. What will normally form a command, termed a *brigade area*, for purposes of discipline and administration in quarters?

2. What is the commander of a brigade area responsible for?

3. What precaution must be taken in choosing alarm posts and wagon parks?

4. What is the alarm post for artillery?

5. How is the direction of all principal roads and the position of all important points in a brigade area to be indicated?

6. How are markets established and prices fixed in brigade areas?

ANSWERS.

1. The area allotted for quarters to each cavalry or infantry brigade, to the divisional

troops of a division, and to any improvised organization approximately equal to a brigade.

2. For all internal arrangements in his area.

3. Care must be taken that main communications shall not be blocked in the event of troops having to turn out suddenly, possibly in the dark.

4. Invariably its gun park.

5. By means of improvised signboards, or by flags or lamps.

6. A place for a market will, if necessary, be selected in each brigade area and a tariff of prices arranged in conjunction with commanders of other areas.

48.—General Arrangements on the Arrival of the Troops.

QUESTIONS.

1. Before the troops are dismissed to their quarters, what must be done?

2. What must be explained to the men before they are dismissed?

3. Where should units on arrival be halted, and what should everyone be made clearly to understand?

4. Are troops allowed to quit their respective areas?

5. What will each commander of a unit do without delay on his arrival?

6. If a state of *constant readiness* is ordered, how will the troops be accoutred and disposed for sleep?

7. If a state of constant readiness is ordered in billets, where must lights be kept burning?

ANSWERS.

1. All necessary defensive precautions must be taken, guards mounted, police posts established, and water, fuel, and forage parties detailed.

2. The arrangements of the brigade area, the boundaries of the unit's area, and other matters of a similar nature.

3. On their respective alarm posts. Every one must be made to understand what he is to do in case of alarm.

4. No troops, other than orderlies and parties for water, wood, and forage, etc., under proper control, are to quit their areas until leave has been given by the commander of the brigade area.

5. He will send an orderly who knows the position of the unit's head-quarters to report himself at the brigade office.

6. They will remain accoutred and will sleep with their arms handy, and it may even be necessary that horses should be kept always saddled and harnessed.

7. In houses, stables, and streets ; and doors must be kept open.

49.—Discipline.

QUESTIONS.

1. How is discipline maintained in brigade areas?
2. When do inlying piquets stand to arms one hour before sunrise?
3. By whose order is the "Alarm" to be sounded?
4. On the "Alarm" sounding, what happens?

ANSWERS.

1. All the daily duties mount, as a rule, immediately a new halting place is reached. When a force remains halted, the usual routine of duties will be observed, as far as possible, in each regiment, brigade of artillery, battalion, or similar unit.
2. When they are ordered by the commander who appoints the commander of the outposts to act as a reserve to the outposts.
3. Only by order of the commander of a brigade area or of superior military authority unless an actual attack is impending, when it may be sounded on the responsibility of any officer or of the commander of a guard.

4. Troops fully armed and equipped fall in by squadrons and companies on the alarm post of their unit ; draught animals are to be at once harnessed in and pack animals saddled up, and an officer from each unit is to be sent for orders to the brigade office.

BILLETS.

50.—General Principles.

QUESTIONS.

1. In the case of large bodies of troops (*e.g.* two divisions or more), when tactical considerations admit and roads are available, how should the divisions be billeted ?

2. What are the advantages claimed for billeting divisions on parallel lines, and in depth ?

3. In allotting areas, what should be kept in view with regard to units ?

4. What use should be made of buildings on the line of march ?

ANSWERS.

1. The divisions should be billeted on parallel lines, each being distributed on a narrow front and in depth.

2. This arrangement admits of each division being closed up on the front more readily than

when divisions are billeted in echelon, and is economical of time and labour when a force is marching from day to day.

3. Units should be kept together as far as possible.

4. The utmost possible use should be made of buildings on or near the roads by which the force is marching.

51.—Allotment of Billets.

QUESTIONS.

1. Should billets, if possible, be allotted in advance?

2. How are billeting areas allotted to armies or divisions in the first instance?

3. How does the capacity of areas for billeting vary?

4. If data as to the capacity of an area for billeting purposes cannot be ascertained beforehand, what may be accepted as a general principle when demanding ordinary billets with subsistence to be provided in a given area?

5. In rich agricultural districts, how many billets without subsistence can be provided per inhabitant?

6. At what rate can billets without subsistence be provided in towns or industrial districts?

7. Can any data be given for close billets?

8. In the case of large units (divisions), how should billeting arrangements be made ?

9. As soon as billeting areas have been approximately allotted by the quarter-master general's staff, how should the areas allotted to the different units be taken over ?

10. What marks should the billeting parties of units who are sent forward make on buildings, etc., to facilitate the housing of the troops on their arrival ?

11. When time does not admit of detailed arrangements, how are billeting areas assigned ?

12. In allotting billets, what two things should be borne in mind by billeting officers ?

13. What points should be observed when allotting billets in addition to those given in the General Principles and Rules for Quarters ?

ANSWERS.

1. Yes, whenever possible, it is most desirable that they should be.

2. On the basis of population.

3. With their character ; *e.g.* whether urban or rural, agricultural or industrial, rich or poor, and with the season of the year.

4. It may be taken that ordinary billets with subsistence can be provided by an area for a force about equal to *twice* its total population for one week.

5. Ten men per inhabitant.
6. Five to six men per inhabitant.
7. No; men for whom no shelter can be provided must bivouac.

8. Parties will be sent ahead for the purpose of making arrangements with the local authorities. These parties will be in charge of an officer of the quarter-master general's staff and will include representatives of brigades and divisional troops. They should move with the protective cavalry if possible.

9. The representatives of brigades, etc., will inform the billeting parties of units, which should move with the main body of the advanced guard, where they may be met. The billeting parties will then proceed forward, and take over their areas, when they will, in turn, send back to meet and guide their units to their billets.

10. They will clearly mark with chalk on the door the names of officers, the number of men and of horses the building is to hold, and the command, *e.g.* squadron, battery, or company, to which it is allotted. The marks must always be removed before marching off.

11. Areas will be roughly assigned to the larger units, and these will in their turn allot certain streets or groups of houses to their units.

12. The comfort of the men and the interests of the inhabitants.

13. (i) Staff officers should be on main communications, and easily found.

(ii) Mounted men must be near their horses, guns, and wagons; and staff officers near their offices.

(iii) Both sides of a street should be allotted to the same unit to prevent confusion in case of alarm.

(iv) Roads and communications must never be blocked. Guns and vehicles must, if necessary, be parked outside towns and villages. If parked on the sides of roads, the first and last gun or vehicles should be marked with a light.

52.—General Rules in Billets.

QUESTION.

1. State briefly the general rules to be observed in billets.

ANSWER.

1. (i) If necessary, the inhabitants should be disarmed and forbidden to leave their houses after a certain hour. It may be necessary to take hostages for their good behaviour. Inhabitants who have leave to be out after dark should carry lights.

- (ii) Inhabitants must be prevented from conveying information to the enemy. Every possible precaution should be taken against any leakage of information.
- (iii) All houses where liquor is obtainable must be placed under control.
- (iv) In every house occupied at least one man must be specially detailed to guard the arms. Arms are not to be piled or left outside.
- (v) Directions should be issued controlling the use of fires and lights in order to prevent signalling to the enemy, and as a precaution against fire.
- (vi) If the enemy is near, the villages in front should be prepared for defence against surprise and garrisoned.
- (vii) An alarm signal should be arranged.
- (viii) Staff officers must immediately on arrival communicate their addresses to the head-quarters office of the district in which they are billeted.

53.—Sanitation in Billets.

QUESTIONS.

1. Who are usually held responsible to take such sanitary measures as may be needed?
2. When is it advisable to give the local authorities assistance?

3. What facts should billeting parties always make themselves acquainted with as quickly as possible ?

4. What should be done in the case of houses where it is not desirable to quarter men ?

5. When billets are to be used by successive bodies of men, what must be seen to by the troops vacating them ?

ANSWERS.

1. The local authorities.

2. In close billets, in which the construction of additional latrines, and watering and washing places will often be necessary.

3. The source of the local water supply, the measures which may be necessary to guard it from pollution, the sanitary system of the place, and inquiries should be made as to the existence of infectious diseases.

4. Sentries should be posted over them.

5. That they are left scrupulously clean ; arrangements should be made to supervise and, if necessary, assist the local authorities in this work after the departure of the troops.

54.—Close Billets.

QUESTIONS.

1. When are close billets adopted ?

2. In allotting close billets, what form of shelter should be fully utilized ?

3. Why is it not generally deemed necessary to consider the interests of the inhabitants in close billets to the same extent as in ordinary billets?

4. Where close billets have to be occupied for any length of time, as in the case of sieges, what is advisable with regard to the inhabitants?

ANSWERS.

1. When a greater state of readiness is required than in ordinary billets.

2. Every form of shelter.

3. Because close billets will, normally, be used for short periods only.

4. To remove them outside the immediate *rayon* of operations.

CAMPS AND BIVOUACS.

55.—General Principles.

QUESTIONS.

1. Describe briefly a desirable site for a camp or bivouac.

2. What surroundings should if possible be avoided when selecting a site for a camp or bivouac?

3. What is essential to a camp or bivouac? and what other points should be considered when selecting a site for a camp or bivouac?

ANSWERS.

1. It should be dry, and on grass if possible. Steep slopes must be avoided, but gentle slopes facilitate drainage.

2. Large woods with undergrowth, low meadows, the bottoms of narrow valleys, and newly turned soil are apt to be unhealthy. Sites of old camping grounds should, if possible, be avoided.

3. A good water supply, but considerations of safety may necessitate a camp or bivouac being placed at some distance from it. Other points to be considered are the facilities which the site offers for obtaining shelter, fuel, forage, and straw.

56.—Arrangements at the End of a March.**QUESTIONS.**

1. Who is detailed to select the ground where the force is to pass the night, and who should accompany the officer charged with this duty?

2. What are the two chief considerations to be borne in mind when selecting the ground where the force is to pass the night?

3. Who makes the necessary arrangements for the reception of the troops on their arrival at the halting place?

4. When the column arrives within two or three miles of its destination, what officers are sent forward, and with what object ?

5. To whom and how do commanders of second line transport and supply columns and the rear guard report as soon as they have reached their destination ?

6. To whom do officers in charge of the second line of transport of brigades, and of units which are not brigaded, report on arrival ?

7. What arrangements should be made to ensure the second line transport arriving quickly at its destination ?

8. When ground is allotted, on what points must each commander be informed ?

9. If grazing is necessary, who is responsible for the protection of the grazing grounds ?

10. What special points should be made clear to each commander after he has reached his destination other than those connected with supply ?

11. Where bodies of troops are encamped or bivouacked close together, who decides on the general position of the latrines and kitchens of each area ?

12. When troops are likely to be called on to defend their camps or bivouacs from attack, what special precaution is necessary ?

ANSWERS.

1. A staff officer, accompanied by some mounted police, in conjunction with an engineer and a medical officer.

2. Tactical considerations, and water supply.

3. The Staff Officer sent forward to select the ground.

4. Staff Officers of brigades, etc., accompanied by the representatives of their units are sent forward to receive instructions concerning the arrangements for the night, lead their units on arrival direct to the ground allotted to them, and explain the arrangements to the commanders of units.

5. Personally to the commander of the column.

6. To their own commanders.

7. Each unit makes arrangements to have its second line transport met and guided to its destination.

8. Of any localities or depôts outside his own area on which he may draw for water, fuel, forage, straw, and other supplies.

9. The authority allotting them.

10. The roads he is at liberty to use, and what *special* defensive, police, or sanitary measures he is to take.

11. Superior authority, in consultation with the senior medical officer ; that is to say, it will

be decided whether they are to be in front, at the rear, or on the flank of the area.

12. Special care is necessary to prevent troops from the various areas crossing one another in proceeding to the ground they are told off to defend.

57.—Watering Arrangements.

QUESTIONS.

1. What arrangements are made to protect the water supply at halting grounds and prevent any form of pollution ?

2. Who will always be consulted when the water supply is selected ?

3. If water is obtained from a stream, what arrangements must be made for watering horses and cattle ?

4. How are the different watering places marked, and by whom ?

5. If running water is not available, what precautions are to be observed to keep the supply pure ?

6. Are similar precautions ever necessary with running water ?

7. When will hours for watering be laid down for each unit ?

8. What may be taken as the average time for watering an animal ?

9. Who should always accompany watering parties of more than twenty animals?

10. What daily average of water per man for drinking and cooking purposes is sufficient?

11. How much water does a horse, bullock, or mule drink at a time?

12. What average allowance of water per man and horse respectively should be given in standing camps?

ANSWERS.

1. The military police, or in their absence the first troops to arrive at a halting ground, will mount sentries on all water likely to be required for use. These sentries will not be withdrawn until permanent water guards are detailed.

2. The sanitary or other medical officer.

3. The horses will be watered below the place where the troops obtain their drinking water, but above bathing and washing places.

4. With flags by the advanced party of engineers.

White for drinking water.

Blue for watering places for animals.

Red for washing or bathing places.

5. Some form of fencing should be placed round the water supply, and animals must be watered by bucket or nose bag. Washing

should be allowed only at some distance from the water supply, water being drawn for this purpose.

6. Whenever other bodies of troops are halted further down.

7. When many animals have to be watered and the frontage is small.

8. Three to five minutes.

9. An officer.

10. One gallon per man.

11. About $1\frac{1}{2}$ gallons.

12. Five gallons for a man, and ten gallons for a horse.

58.—Picketing.

QUESTIONS.

1. How should horses be picketed?

2. What frontage does a horse require when picketed, and what distance from picket line to heel peg?

3. When may it be necessary to increase the frontage for picketed horses?

4. What is the width of gangway to be maintained between two horse lines, and between a horse line and the nearest building wall, etc., or the pegs of the nearest tent?

5. Where will saddlery and harness be placed, and where forage?

6. How should head ropes be fastened?
7. If horses are unaccustomed to picketing, what precaution should be taken?

ANSWERS.

1. In lines facing away from the prevailing wind if possible.
2. A frontage of two paces and a distance of five paces from picket line to heel rope.
3. When horses are fresh from stables.
4. Two paces will be maintained between two horse lines, and between a horse line and the nearest building, wall, pegs of nearest tent, etc.
5. Saddlery and harness in the gangways in rear of the heel pegs; forage at the rear ends of the horse lines.
6. At such a length as to be just slack when the horse is standing naturally.
7. The men should be kept as much as possible among them.

59.—Parking Guns and Vehicles.

QUESTIONS.

1. In parking vehicles, what distance should be kept clear in front of guns or vehicles, and where should they be parked?
2. What is the minimum interval that should be left between guns or transport vehicles?

3. If space admits, at what intervals should guns be parked ?

ANSWERS.

- | | | |
|-------------------------|-----|-----------|
| 1. Heavy gun (8 horses) | ... | 16 yards. |
| 6-horse gun or wagon | ... | 12 „ |
| 4-horse vehicle | ... | 8 „ |
| 1 or 2-horse vehicle | ... | 5 „ |
2. One yard.
3. Half interval ($9\frac{1}{2}$ yards).

60.—Sanitation in Camp or Bivouac.

QUESTIONS.

1. How should latrines be constructed ?
2. Why should the trenches be narrow and deep ?
3. If natives are employed, what arrangements must be made ?
4. Why is the supervision of latrines so absolutely necessary ?
5. Why are men not allowed to urinate elsewhere than in the latrine trenches, or in urinals set apart for the purpose ?
6. What receptacles for urine should be used at night to prevent pollution of the ground ?
7. How far from, and on what side of, the water supply and kitchens should latrines, urinals, refuse pits, cattle lines, etc., be situated, and where must they never be placed ?

8. How often should the contents of latrine trenches be covered with earth ?

9. For general use, what disinfectants are the most efficacious ?

10. What proportion of cresol solution is used per gallon of water ?

ANSWERS.

1. To seat, if possible, five per cent. of the troops, one yard per man being allowed.

2. To prevent the contents being blown about.

3. Special latrines for them are necessary.

4. In order to ensure excreta being at once covered up. Disease may easily spread if latrines are not carefully attended to.

5. Because urine may spread infection.

6. Empty biscuit tins, etc., should be placed close to the tents.

7. At least 100 yards from, and when practical to leeward. They must never be placed in or near gullies which, when it rains, discharge into the water supply.

8. As often as possible, and at least twice daily.

9. Cresol solution and chloride of lime.

10. Mix $1\frac{1}{2}$ ounces of cresol solution with one gallon of water.

61.—General Rules in Camp.**QUESTIONS.**

1. Subject to the general rules, what determines the shape and the size of a camp or bivouac ?
2. In brigade or larger encampments, where should one main centre and one main cross street run ?
3. Provided units are not cramped for space, why should the dimensions of a camp or bivouac not be increased unduly ?
4. What is the usual interval between units ?
5. Where should the trench round a tent be dug and the excavated earth banked ?
6. How should the curtain be pegged ?
7. What should be done to prevent the rain-water lodging in the trenches ?
8. What work should always be done on the first wet day to keep the camp healthy ?
9. How often should the tent flies be looped up, and on which side only in wet weather ?
10. In standing camps, how often should tents be struck ?
11. When tents are struck, may tents be pitched for occupation in the intervals ?
12. How should tent doors generally face ?
13. Is a light ever to be left burning in an unoccupied tent ?
14. When should tent ropes be slackened ?

15. When should special precautions be taken against fire?

16. At what pace are officers or men riding or driving inside the camp to go, except when on duty and with special orders as to pace?

ANSWERS.

1. The ground.

2. The entire length and depth of the camp.

3. Because a straggling camp entails extra fatigue duties and delay in circulating orders.

4. Ten yards.

5. Immediately under the curtain of the tent and the excavated earth banked on the outer edge of the trench.

6. To the inner slope of the trench, the canvas thus draining into it.

7. Surface drains should be constructed.

8. When the natural run of the water can be seen, half-an-hour's work on the first wet day will keep the camp dry and healthy.

9. The first thing every morning, in wet weather on the leeward side only.

10. Periodically and the ground underneath well swept and left exposed for some hours at least, the tents being eventually replaced on their former sites.

11. Never.

12. Away from the prevailing wind; in mounted units they should face the horse lines.

13. Never.
14. If rain or heavy dew is likely.
15. If a camp is pitched in or near dry grass or heather.
16. They are not to go out of a walk.

62.—General Rules in Bivouacs.

QUESTIONS.

1. Where do mounted men bivouac ?
2. Where do infantry pile or ground arms by day, and what do men do with their arms and equipment by night ?
3. Do men ever sleep fully equipped ?

ANSWERS.

1. In front of their horses.
2. On the Alarm post by day, articles of equipment (except haversack and water-bottle) being laid by the arms. By night men rest with their arms and equipment by them.
3. In some cases when a sudden alarm is likely to be given.

63.—Standing Camps and Rest Camps.

QUESTIONS.

1. When laying out a standing camp, how should tents at the required intervals and distances be dressed ?

2. What should be constructed to insure the camps being kept dry ?

3. What should be constructed for burning dead animals, refuse, etc. ?

4. What should be done with regard to flies ?

5. What notice boards are to be put up, and where should a plan of the camp be on view ?

6. What should all parties have fully explained to them on arrival ?

7. How should camping grounds be definitely allocated ?

8. May infantry camping grounds be used by mounted troops ?

9. Who reports the arrival at, and departure from, a rest camp or post on a line of communication of any body of troops to the commandant of the camp or post ?

10. How do detached officers report themselves ?

ANSWERS.

1. Both from the front and flank.

2. A system of surface drainage.

3. Cinerators.

4. Great care should be taken to prevent them from breeding in dirt and refuse, and from coming in contact with food.

5. Notice boards should be put up showing the position of offices, depôts, hospital, veteri-

ary hospital, watering places, latrines, urinals, refuse pits, etc., and a plan of the camp should be on view at the Commandant's office.

6. The arrangements, including those for defence when necessary, and the rules of the camp.

7. For mounted troops, dismounted troops, and convoys respectively.

8. Infantry camping grounds should not be used by mounted troops.

9. Its commanders.

10. They write their names in a book provided for the purpose, stating the duration of their stay and the duty on which they are travelling.

CHAPTER V.

PROTECTION.

64.—General Principles.

QUESTIONS.

1. Who is responsible for the protection of his command against surprise ?
2. When only can a force be regarded as secure ?
3. Describe the method of protecting troops at all times and under all circumstances.
4. How must the commander of each protecting detachment at all times keep his command ?
5. Who is responsible that a protecting detachment maintains connection with the force protected ?
6. In the event of attack, what must the commander of a protecting detachment be prepared to do at all risks and at any sacrifice ?
7. Does the fact of cavalry being in advance

necessarily afford security to the troops in rear ?

8. Can local protection ever be dispensed with ?

9. At the end of a march, what troops are responsible for the protection of the main body while at rest ?

10. When the march recommences, when may the outposts be withdrawn ?

11. Are the principles laid down for protection the same for all troops, mounted or infantry, whether forming part of a force of all arms or acting independently ?

ANSWERS.

1. Every commander.

2. When protection is furnished in every direction from which attack is possible.

3. Detachments are thrown out by the commander of the body to be protected; these detachments provide for their own safety by furnishing detachments from themselves until eventually a series of small groups is reached.

4. Ready for action.

5. The commander of the protecting detachment, except in warfare in uncivilized countries.

6. He must at all risks gain time for the body he immediately protects to prepare to meet the attack.

7. No, not necessarily. If the enemy is enterprising, he may find an opportunity of avoiding the protective cavalry.

8. Never.

9. The troops that have covered the march, unless other arrangements are made by the commander of the force.

10. Outposts must not be withdrawn till the troops detailed for the protection of the march are in position.

11. Their general application holds good for all troops.

PROTECTION ON THE MARCH.

65.—The First Line of Protection.

QUESTIONS.

1. What troops of an army form the chief means at the disposal of its commander for obtaining information and for protecting his advance?

2. Into what three distinct bodies are the mounted troops divided according to the nature of their duties?

3. What is the fundamental principle in the distribution of cavalry?

4. May the independent cavalry be reinforced by the protective cavalry and *vice versa*?

5. Is the defeat of the enemy's cavalry by the independent cavalry deemed to be sufficient protection to an army against hostile enterprises?

6. How is local protection on the march afforded besides that given by the independent cavalry operating in front and on the flanks?

7. What other troops usually accompany the protective cavalry?

8. Under whose order does the divisional cavalry act?

9. What are the duties of the divisional cavalry?

10. When the opposing forces are at a distance what are the duties of the protective cavalry?

11. Does the defensive action of the protective cavalry, which necessitates extension over a considerable front, dispense with its having to be disposed in depth?

12. When the opposing forces are within striking distance of each other, what is the duty of the cavalry?

13. What does this duty usually involve and how is it carried out?

14. How can the protective cavalry best assure the safety of the force it covers?

15. How is the protective cavalry normally organized?

16. Explain how what is termed a strategic

advanced guard is formed, and usually with what object ?

17. When a strategic advanced guard is formed, who commands it, and who determines its composition and duties ?

18. Is the composition of a strategic advanced guard changed daily, as is usually the case with a tactical advanced guard ?

ANSWERS.

1. The mounted troops.

2. (i) The independent cavalry (so called because it is at the disposal of the Commander-in-chief and is not charged with the direct protection of any slower moving body of troops).

(ii) The protective cavalry.

(iii) The divisional cavalry.

3. That the commander-in-chief, in order to gain full value from that arm, must clearly determine what he requires of it, and group his units accordingly in a suitable manner and in sufficient strength.

4. Yes, should circumstances require such re-inforcement.

5. No, not entirely, and in order that the independent cavalry may not be tied to the army, the duty of covering the main columns is entrusted to the protective cavalry, which thus furnishes the first line of protection.

6. By Advanced, Rear and Flank Guards, and when at rest by outposts.

7. Mounted infantry and horse artillery.

8. Under the direct orders of the divisional commander.

9. It assists the infantry in the *immediate* protection of the division by supplying mounted men for patrolling in connection with advanced guards, flank guards, rear guards, and outposts ; it maintains a connection with the protective cavalry and neighbouring columns, and it furnishes escorts, orderlies, despatch riders, and facilitates inter-communication generally—

10. (i) To afford the commander of the force it may be covering timely information regarding the enemy's approach.

(ii) To furnish information regarding tactical features, resources, and roads of the country in advance of the main body.

(iii) To oppose hostile enterprises and prevent the enemy obtaining information regarding the movement of the columns in rear. The protective cavalry may also be employed to seize and hold positions in front of the slower moving infantry and deny their occupation to the enemy until the main body arrives.

11. No; the commander must dispose his force in sufficient depth to enable it, with the assistance of the advanced guards of the columns in rear, to check any attempt to break through and surprise the main body.

12. To clear up the tactical situation.

13. Offensive action on the part of the protective cavalry, assisted by the independent cavalry and other advanced troops, as the general situation permits.

14. By keeping the enemy continuously under observation when contact with him has once been gained.

15. Into mounted brigades.

16. When it is desired to strengthen the first line of protection, for example, in order to cover the advance of a number of columns through difficult country, one or more mounted brigades may be attached to a division, or a mounted brigade may be temporarily strengthened by the addition of field artillery and infantry. The body so formed is called a strategic advanced guard.

17. A commander for it is appointed, and its composition and duties are determined by the authority who orders its formation.

18. A strategic advanced guard is normally formed for a specific purpose, and its composition is not changed daily.

THE TACTICAL ADVANCE GUARD.**66.—Composition, and Strength of an Advanced Guard to a Force Advancing.****QUESTIONS.**

1. What should every body of troops advancing through a country in which it is possible that an enemy may be encountered be preceded by?
2. When at a distance from the enemy a force may, for facility of subsistence and for the comfort of the troops, be divided into a number of columns and march on a broad front; does each column provide for its own protection?
3. When approaching the enemy, and the force for the sake of unity of action moves on a narrower front, how is it protected?
4. What regulates the strength of an advanced guard?
5. How is an advanced guard divided.
6. What is the usual composition of an advanced guard?
7. What does the proportion of each arm usually depend on?
8. What is the special duty of the van guard, and what is it generally composed of?
9. When can infantry be dispensed with in the van guard?

10. Should field artillery be detailed to the van guard?

11. Are engineers added to the van guard?

12. What troops comprise the main guard?

ANSWERS.

1. A *tactical* advanced guard.

2. Yes, each column provides for its own protection.

3. A single advanced guard, detailed from a complete unit, is then usually preferable.

4. It will be proportionate to the strength of the main body. It may vary from a fourth to an eighth of the whole force.

5. Into a van guard and a main guard.

6. It will usually be composed of all arms.

7. Chiefly on the character of the country.

8. Reconnaissance. It will be composed of the advanced guard mounted troops, with or without a body of infantry in support.

9. By day when the country is open and the advanced guard is strong in mounted troops.

10. Field artillery will seldom accompany it, as artillery from the main guard can easily be sent up if required.

11. A party of engineers should usually be added.

12. The troops of the advanced guard not allotted to the van guard.

67.—Advanced Guard Commander.**QUESTIONS.**

1. What should the advanced guard commander, on taking over his duties, be informed of?
2. Should the advanced guard commander receive instructions as to engaging the enemy?
3. When does the advanced guard commander issue his orders?
4. What special points does he explain in his orders?
5. Who is responsible that connection is maintained between the different parts of the advanced guard, and also with the main body?

ANSWERS.

1. What is known of the enemy, of the strength and composition of the advanced guard, and of the intentions of the commander.
2. He should receive clear instructions as to engaging the enemy, if he is met with in force.
3. On receipt of his instructions.
4. He will explain the general situation, the route to be followed, the composition of the van guard and main guard, the order of march, and the hour of starting.
5. The commander of the advanced guards.

68.—Action of an Advanced Guard to a Force Advancing.

QUESTIONS.

1. When does an advanced guard commence its duties, and what does this fact necessitate ?

2. What regulates the distance at which the advanced guard precedes the main body ?

3. Why is it so important that when the enemy is met the commander of the force which the advanced guard is protecting should be at once informed ?

4. What troops of the enemy must be brushed aside before anything definite can be known about him ?

5. Is it the duty of advanced guards to assist the mounted troops in front in driving in the enemy's covering troops ?

6. If the commander of the force has decided on offensive action, what should the advance guard commander secure ?

7. Why is it justifiable for an advanced guard to deploy on a broader front than would be advisable for a force of the same size entering on a decisive action ?

8. What should be borne in mind when selecting positions for the advanced guard artillery ?

9. Should the commander of the force wish

to avoid being drawn into a decisive engagement, how should the advanced guard commander act?

10. If the advanced guard commander is in any doubt as to the intentions of the commander of the force, what must he do, and what should regulate his actions?

11. How is the main guard protected from surprise?

12. In an open country, how far may mounted patrols be pushed in front of the main body of the advanced guard?

13. In any case, how far must they push on?

14. What troops should advanced guard mounted troops always keep in communication with?

15. If constant communication between two columns is difficult, what arrangements should be made between them for communicating?

ANSWERS.

1. The advanced guard must protect the main body from the moment the march of the latter begins. The commander will therefore decide the hour at which the advanced guard will clear the starting point and the distance at which it will precede the main body.

2. It varies with the nature of the country and the tactical situation. It should be sufficient to enable the main body to deploy should the

enemy be met with in force, and to admit of minor opposition being brushed aside *without checking the main body.*

3. In order that he may form his plans and have time to put them into execution when they are formed.

4. The enemy's advanced mounted troops.

5. Yes, provided they do not get too far ahead of the main body and thus expose it to possible surprise.

6. Any tactical points which may assist the development of the attack of the main body.

7. Because every moment brings the main body closer.

8. They should be chosen with a view to the subsequent action of the artillery of the main body.

9. He will use all means at his disposal, short of committing the main body, to delay and hamper the enemy and to discover his dispositions.

10. He must act on his own initiative, *remembering that by driving in the enemy's advanced troops at once he will usually assist the commander of the force in coming to a decision and that this will rarely interfere with the latter's liberty of action, while hesitation and delay may do so by allowing the enemy to seize the initiative.*

11. By the van guard.
12. They should seldom be less than four or five miles in front of the main body.
13. All ground within effective artillery range must be searched.
14. With the protective cavalry, and with the columns moving on parallel roads.
15. Arrangements should be made between them for communicating at stated places or intervals of time during the march.

69.—Advanced Guard in a Retreat.

QUESTIONS.

1. Should a force retreating push on an advanced guard?
2. What is the special duty of an advanced guard to a retreating force?
3. What troops should invariably accompany an advance guard to a force retreating, and with what objects?
4. When would a strong advanced guard be required for a retreating force?

ANSWERS.

1. Yes.
2. To clear away obstacles that would delay the march.
3. Mounted men for scouting purposes, and engineers for the removal of obstacles, or the

preparation of bridges, etc., for demolition after the *rear-guard* has passed.

4. Should it be possible for the enemy to intercept the head of the retreating column.

THE FLANK GUARD.

70.—General Principles.

QUESTIONS.

1. When should flank guards be detailed for the protection of a column on the march?

2. From what body of troops are flank guards usually furnished?

3. What principles govern the strength, composition, and dispositions of a flank guard, and its distance from the main body?

4. For how long may a flank guard be required to hold its own without support?

5. Should the main body change direction so that the march becomes a flank march (*i.e.*, a march across the enemy's front), what is usually done for its protection?

ANSWERS.

1. If there is any possibility of a column on the march being attacked in flank.

2. They will usually be furnished by the main body, but may sometimes be dropped by the advanced guard.

3. They are governed by the principles which apply to all protecting detachments.

4. Until the main body and transport have passed.

5. It will generally be advisable to use the old advanced guard as a flank guard, and to form a new advanced guard from the main body.

THE REAR GUARD.

71.—Duties, Composition, and Strength of the Rear Guard to a Retreating Force.

QUESTIONS.

1. What is the first requirement of a retreating force?

2. How is this effected?

3. What is the composition of a rear guard to a force retreating?

4. What arms will it usually be very strong in?

5. What troops should be detailed for a rear guard?

6. By whom is the commander of a rear guard appointed?

7. On what special points should the commander of a rear guard receive instructions?

8. When pursuit is not close, what is the disposition of a rear guard?

ANSWERS.

1. To be relieved from the pressure of pursuit.

2. By detaching a portion of the force, the strength of which will depend on the situation, as a rear guard to impede the enemy's advance.

3. It is essentially a force of all arms.

4. Artillery, to force the enemy to deploy at a distance, whilst mounted troops, on account of their mobility, can hold a position longer than infantry, and also prevent the flanks from being turned. A rear guard should also be accompanied by a strong detachment of engineers provided with demolition equipment.

5. Those which have been least severely engaged.

6. By the commander of the force to be protected.

7. He should receive instructions as to what extent he is at liberty to break down bridges, burn villages, and destroy railways, with a view to impeding the enemy's progress.

8. It will resemble that of an advanced guard *reversed*; a *rear party*, composed of mounted men, having been formed, the remainder of the troops, when not engaged, generally move as a main guard in the order in which they can most readily come into action.

72.—Action of a Rear Guard to a Retreating Force.

QUESTIONS.

1. How does a rear guard best carry out its mission ?
2. What is most needed by a retreating force?
3. In what situation can a rear guard effectively check an enemy ?
4. When occupying a rear guard position, what are the two most important points to be borne in mind by its commander ?
5. In what manner does occupying a rear guard position differ from that of occupying a position to be resolutely defended ?
6. How should the mounted troops with a rear guard be employed ?
7. What is the first consideration in selecting a position for the artillery of a rear guard ?
8. What is the second most important consideration ?
9. What must be accurately judged by a rear guard commander when withdrawing his troops ?
10. What constitutes the main difference between the tactics of a rear guard and that of a pursuing force ?
11. What is the minimum distance at which a rear guard should be kept, if possible, from the main body whose retreat it is covering ?

12. What should the commander of the main body periodically keep the commander of the rear guard informed of, and *vice versa*?

13. Should the lines of retreat from a rear guard position converge?

14. With what object should an officer be sent to the rear when a rear guard becomes engaged?

15. How far apart should be the successive positions selected for a rear guard to make a stand?

16. Before withdrawing from a rear guard position, what arrangement should be made by the commander?

ANSWERS.

1. By compelling the enemy's troops to halt and deploy for attack as frequently and at as great a distance as possible. When the enemy's dispositions are nearly complete, the rear guard moves off by successive retirements, each party as it falls back covering the retirement of the next by its fire.

2. Time to get away and re-organise.

3. By attacking his advanced troops as they emerge from a defile or from difficult country.

4. (i) To show as strong a front as possible to the enemy.

(ii) To make sure of good lines of retreat.

5. In that the greater part of the force should be in the fighting line from the outset, and *in as great a display of force as possible* being made.

6. Wide on the flanks, so as to forestall any attempt made by the enemy to pass between the rear guard and the main body.

7. That it shall be able to open fire on the enemy at long range, and thus compel his infantry to assume an extended formation at the greatest possible distance.

8. That it should be possible to withdraw without difficulty.

9. He must judge accurately the proper time to retire. He must bear in mind the difficulty of withdrawing infantry that has once become engaged.

10. When a rear guard halts to fight, every moment separates it further from the main body, whereas with a pursuing force every moment brings its reinforcements closer.

11. It should be sufficient to prevent the main body being shelled by the enemy.

12. He should keep him informed of his progress.

13. No; they should as far as possible be parallel to each other.

14. To note the next favourable position for defence on the line of retreat.

15. Sufficiently far apart to induce the enemy, after seizing one, to reform column of route before advancing against the next.

16. To cover the retirement of the portion of the rear guard which is still engaged, by the disposition of the troops that have already retired.

73.—Expedients for Delaying an Enemy's Advance.

QUESTION.

1. With a view to delaying an enemy's advance, what expedients may be resorted to?

ANSWER.

1. (i) Narrow roads, etc., can be blocked by locking together several wagons and removing one or more of the wheels, or by felling trees across them.
- (ii) Fords may be rendered impassable by throwing in ploughs, harrows, etc.
- (iii) Boats may be removed to the side of the river further from the enemy and sunk or burnt.
- (iv) Villages, woods, heather, scrub, etc., if the circumstances demand it, may be set on fire by the rear party.
- (v) Skilfully laid ambushes will cause the enemy to move with caution in pursuit.

74.—Rear Guard to a Force Advancing.**QUESTIONS.**

1. When should a rear guard to a force advancing be composed of all arms and be sufficiently strong to meet all emergencies?
2. If it is only to be employed in collecting stragglers and keeping off marauders, what is a rear guard usually composed of?
3. What arrangements must be made by the commander of a column advancing for the protection of the second line of transport, and transport and supply columns?

ANSWERS.

1. If there is any chance of the rear of an advancing column being exposed to the enemy's attacks.
2. Infantry, with sometimes a few mounted troops added for watching the flanks.
3. If the transport and supply columns march without any considerable distance between them and the main body, one rear guard will usually suffice for the whole; but if there is a considerable distance, the rear guard will follow the main body, and special arrangements will be made for the protection of the transport.

PROTECTION WHEN AT REST.

Outposts.

75.—General Principles and Rules.

QUESTIONS.

1. How is every body of troops when halted protected ?
2. When does the firing line practically take the place of outposts ?
3. Under these conditions, how do the commanders of the advanced battalions and companies secure themselves from surprise and endeavour to keep touch with the enemy ?
4. What are the duties of outposts ?
5. How is the first duty performed ?
6. How is the second duty performed ?
7. Why should not a man nor horse more than absolutely needed be employed on outpost duty ?
8. What is the first principle of outpost duty, and what does it entail on all the troops employed on this duty ?
9. What should detachments in close proximity to the enemy be careful to avoid ?

ANSWERS.

1. By outposts.
2. If the enemy is close at hand and battle imminent, or if the battle ceases only at night-

fall to be renewed next day, they will have to bivouac in their battle positions.

3. By patrols and sentries.
4. (i) To provide protection against surprise.
(ii) In case of attack, to gain time for the commander of the force to put his plan of action into execution.
5. By means of *reconnaissance*.
6. By *resistance*.
7. Because outpost duty is most exhausting, and if more than one-sixth of the force is employed, the efficiency of the troops will suffer.
8. *To see without being seen*. All troops on outpost duty must, therefore, be carefully concealed.
9. Useless collisions.

76.—Position of the Outposts.

QUESTIONS.

1. When there is any possibility of a force coming in conflict with an enemy, what should its commander decide on *before* arranging the quartering of his command and *the position of the outposts*?
2. When choosing an outpost line, what two requirements must be carefully considered? Which is the most important?
3. What is the distance of the outpost position from the main body regulated by?

4. Is *commanding* ground essential for an outpost position?

5. What advantages are secured by placing the advanced troops of outposts along well defined natural features, such as ridges, streams, the outer edges of woods, etc., or in the vicinity of roads, but what must outweigh all other considerations when selecting an outpost line?

6. In enclosed country and at night, what are the movements of troops restricted to, and what precautions should be taken?

7. When may the outpost position be divided into sections?

8. What does the extent of a section depend upon?

9. What does the extent of frontage allotted to each company depend upon?

10. Should the outpost position be strengthened and communications improved where necessary by piquets and supports without waiting for definite orders?

ANSWERS.

1. His dispositions in case of attack.

2. Commanding ground for observation by day, and facilities for protracted resistance. Facilities for observation, however, are of less importance than facilities for protracted resistance, provided the ground in front be well patrolled.

3. By the time which the main body requires to prepare for action, and by the necessity of preventing the enemy's artillery from interfering with the freedom of movement of the main body.

4. Commanding ground is advantageous, but by no means essential.

5. Command, co-operation, and inter-communication will be facilitated, but this must not be allowed to outweigh the necessity for making the best tactical dispositions possible.

6. To the roads and tracks, which should be carefully watched.

7. When it is extensive, each section being allotted to a certain number of companies, sections being numbered from the right.

8. Upon the amount of ground which can be supervised conveniently by one commander.

9. On the defensive capabilities of the outpost position.

10. Piquets and supports will do this without waiting for definite orders.

77.—Composition of the Outposts.

QUESTIONS.

1. When are the outposts furnished from each division or brigade in the front line?

2. Who divides the ground to be covered by the outposts?

3. Who details the commander of the outposts and the outpost troops for each position?

4. When may the commander of a force decide to detail the whole of the outpost troops?

5. What troops do the outposts of a force of all arms consist of?

6. How are outpost mounted troops usually provided, and to what portion of the outposts are they attached?

7. What is the special work of outpost mounted troops?

8. When are the mounted troops withdrawn, and where do they go when withdrawn?

9. Are mounted troops ever used at night with outposts?

10. When may artillery be usefully employed with outposts and to what extent?

11. When is artillery withdrawn?

12. How may machine guns be employed with outposts?

13. When a force is on the march, when should the outpost troops be detailed?

ANSWERS.

1. In the case of large forces, or when a force is scattered.

2. The commander of the force. between his subordinate commanders.

3. The commanders of the units from which the outpost troops are furnished for each portion.

4. When it is a small force and the ground covered by the outposts is not extensive, in which case he will also detail the commander of the outposts.

5. *Outpost Mounted Troops, Outpost Companies*, and, when necessary, *the Reserve*. Machine guns will generally be included and sometimes artillery.

6. By the divisional cavalry. They may be attached to sections of the outposts, or outpost companies.

7. Reconnoitring, and to keep touch with the protective cavalry by day.

8. At night, their place then being with the reserve.

9. In certain cases standing mounted patrols may be left out at night with advantage.

10. If the outposts occupy the ground which the main body is to hold in case of attack; if there is limited ground over which the enemy must pass; or if it is important to prevent the enemy from occupying artillery positions within close artillery range of the outposts. Except when the outposts occupy the battle position, more guns should not be employed than can be easily and rapidly withdrawn.

11. At night, except when with the reserve.

12. To sweep approaches, and to cover ground which an enemy in advancing may be compelled to pass or occupy.

13. Before the march is completed.

78.—Commander of the Outposts.

QUESTIONS.

1. What should the commander of the outposts be told before the force is halted ?

2. As soon as the officer appointed to command the outposts has received his instructions, what will he do at once ?

3. On what points will he subsequently supplement his primary orders by detailed orders ?

4. As soon as the outposts are in position, what does the commander of the outposts do ?

ANSWERS.

1. What is known of the enemy, and of other bodies of our own troops ; the intentions of the commander, who appoints him, if the enemy attacks ; where the force to be covered will halt ; the general position to be occupied by the outposts ; whether there are other troops on his flanks ; the composition of the outposts and the hour at which they will be relieved.

2. He will give out either verbally or in writing such orders as are immediately necessary for the occupation of the outpost line.

3. (i) Information of the enemy and of our own troops so far as they affect the outposts.
- (ii) General positions to be occupied by the outpost; division into sections, if necessary; frontage, or number of roads, allotted to each outpost company, or to each section; and situation of the reserve.
- (iii) Disposition of the outpost mounted troops.
- (iv) Dispositions in case of attack. Generally the line of resistance, and the degree of resistance to be offered.
- (v) Special arrangements by night.
- (vi) Smoking, lighting fires, and cooking.
- (vii) The hour at which the outposts will be relieved.
- (viii) His own position.
4. He informs the commander who appointed him, and furnish him with a rough sketch showing his dispositions.

79.—Distribution of the Outposts.

QUESTIONS.

1. Who assigns a definite part of the outpost position to each outpost company, or in the case of mounted troops acting independently, or em-

ployed in front of the main outpost position, to each squadron ?

2. Should it be necessary to divide the outpost position into sections, who appoints the commanders of sections, and how do they divide their sections ?

3. How should the limits of ground allotted to sections of the outposts, or to outpost companies, be marked ?

4. What should each company know with regard to its front ?

5. What do outpost companies provide ?

6. What are the duties of the commander of an outpost company, or squadron on outpost duty, after he has received his orders ?

ANSWERS.

1. The commander of the outposts.

2. The commander of the outposts will appoint commanders of sections, who will, in that case, divide their sections among their outpost companies.

3. By some distinctive feature, such as trees, cottages, streams, etc.

4. What roads it is expected to guard, and the exact limits of the ground it is to patrol.

5. Piquets or detached posts and their supports.

6. He will move his command to the ground allotted to it, where the company will be halted

under cover, the covering troops holding a line a short distance in advance of the most suitable position for the piquets.

He will then examine the ground, decide on the number and position of the piquets, and on the position of the support, which should, if possible, be composed of a half company, or section. These will then be moved into their allotted positions, and the necessary groups and sentries posted and patrols sent out, after which the covering troops will be withdrawn.

He will give instructions to the commanders of piquets and detached posts, and will make arrangements for a protracted resistance by selecting a good defensive position which should, if possible, correspond with the piquet line; it should support, and be supported by, the companies on either hand.

He will send out patrols to examine the country in front, and will communicate with the companies on the flanks of his position. He must ascertain the dispositions of those companies, so as to ensure no ground being left unprotected.

80.--The Reserve.

QUESTIONS.

1. When only will a reserve be used with outposts?

2. If a reserve is required, by whom is it detailed, and what should it always consist of?
3. Is the reserve ever divided?
4. If no reserve is specially detailed, what takes its place?

ANSWERS.

1. When the outpost force is large, or when the outposts hold the ground to be occupied by the main body in case of attack.

2. By the commander who appoints the outpost commander. It should always be formed of a complete unit, with mounted troops and generally some guns attached.

3. It may often be advisable to divide the reserve into two or even more parts, when, for instance, the outpost position is very extensive, or the country intersected or difficult.

4. An inlying piquet of the necessary strength will be found by the command which furnishes the outpost troops.

81.—Piquets.

QUESTIONS.

1. What will a piquet commander do as soon as he has received his orders?
2. How are sentries in the first line posted?
3. If it is desired to retain more men with the piquet, how may sentries be posted? What

are the drawbacks to this system of posting sentries?

4. As a general rule, how far should a sentry post be from the piquet?

5. How should sentries be placed?

6. What will a sentry do on the approach of any person or party?

7. When the nearest person approaching his post is within speaking distance, what will the sentry do?

8. How is the person then dealt with?

9. What is done in the case of any person not obeying the sentry, or attempting to make off after being challenged?

ANSWERS.

1. He will explain them to his piquet and will satisfy himself that every man knows the direction of the enemy, the position of the next piquets and of the support, what he is to do in case of attack by day or by night, whether there is any cavalry in front, and the line of retreat; and that sentries know, in addition, the position of the sentries on their right and left, the position of the piquet and of any detached posts in the neighbourhood; the ground they have to watch; how they are to deal with persons approaching their posts; the names of all

villages, rivers, etc., in view, and the places to which roads and railways lead.

2. In groups, which consist of from three to six men, under a non-commissioned officer or the oldest soldier, and should be relieved every eight or twelve hours. In open country one man is posted as a sentry, while the remainder lie down close at hand; but if the country is close, or special precautions are necessary, the sentry post may be doubled.

3. In pairs, the men of each pair being close to, or within speaking distance of, each other, according to the ground. There should be three reliefs for each double sentry, one on duty while the other two are with the piquet. This system has the disadvantage of causing more movement in the line of sentries, and of entailing more fatigue on the men.

4. Not more than about a quarter-of-a-mile.

5. So as to gain a clear view over the ground in their front, whilst concealed from the enemy's view.

6. Immediately warn his group.

7. He will call out "*halt*," covering him with his rifle.

8. The group commander will then deal with the person or party according to the instructions received by him.

9. He will be fired upon without hesitation.

82.—Mounted Piquets and Vedettes.**QUESTION.**

1. In addition to the principles laid down for dismounted piquets and sentries, what special principles apply to mounted troops?

ANSWERS.

- (i) Cossack posts are equivalent to sentry groups. They consist of three to six men (including the vedette), under a non-commissioned officer or senior soldier. The vedettes, as a rule, dismount. The reliefs of the vedette always dismount, and remain as close to the vedette as possible.
- (ii) By night the vedette should be doubled and the post increased accordingly.
- (iii) Cossack posts never off-saddle; the horses must never be unbridled, and everything must be ready for instant action.
- (iv) Cossack posts are relieved every 6, 12, or 24 hours, according to weather, shelter, water, etc.
- (v) Feeding and watering are to be carried out by one-third of a piquet or detached post at a time. Horses that are to be fed must be taken a short distance away from the others.

- (vi) The horses of a piquet or detached post are never to be unsaddled or unbridled at night. During the day, when matters seem quiet, girths should be loosened, and saddles shifted, one-third at a time.

83.—Detached Posts.

QUESTIONS.

1. Why should detached posts from an outpost company be employed as seldom as possible ?
2. What do detached posts usually consist of ?
3. Where may detached posts be placed ?
4. How should detached posts act ?

ANSWERS.

1. Because there is the danger of their being cut off.
2. From six to twelve men under a non-commissioned officer or officer, but may be stronger.
3. In front or in rear of the extreme flank of the outpost position, to watch some particular place or road by which the flank might be turned, or they may be placed in advance of the sentry line to watch some spot where the enemy might collect preparatory to an attack, or which he might occupy for purposes of observation.

4. They should act in the same manner as laid down for piquets.

84.—Traffic through the Outposts.

QUESTIONS.

1. What is the regulation as to persons passing through the outposts?

2. What is done with inhabitants with information?

3. What persons only are allowed to speak to persons presenting themselves at the outpost line after they have been stopped and detained on the sentry line?

4. What is done with prisoners and deserters?

5. In civilized countries, when for tactical reasons, no piquet is posted on a main line of traffic, what should be specially posted to deal with traffic through the outposts?

ANSWERS.

1. No one other than troops on duty, prisoners, deserters, and flags of truce will be allowed to pass through the outposts either from within or from without, except with the authority of the commander who details the outposts, or of the commander-in-chief.

2. They will be blindfolded and detained at the nearest piquet pending instructions, and

their information sent to the commander of the outposts.

3. Only the commanders of the nearest piquet and outpost company, who should confine their conversation to what is essential, and the commander of the outposts.

4. They will be sent at once, under escort, through the commander of the outpost company, to the commander of the outposts.

5. A detached post should be posted specially to deal with traffic through the outposts. Such detached posts will be detailed by the commander of the outpost company in whose section the main line of traffic lies.

85.—Flags of Truce.

QUESTIONS.

1. On the approach of a flag of truce, what is done?

2. If permission is given for the flag of truce to pass through the outposts, what is the procedure laid down?

3. If the flag of truce is merely the bearer of a letter or parcel, what is the procedure?

ANSWERS.

1. One sentry, or more if at hand, will advance and halt it at such a distance as to prevent any of the party who compose it over-

looking the posts ; he will then detain the flag of truce until instructions are received from the commander of the outpost company.

2. The individuals bearing it must first be blindfolded, and then led under escort to the commander of the outposts. No conversation, except by his permission, is to be allowed on any subject, under any pretence, with the persons bearing the flag of truce.

3. The commander of the outpost company must receive it, and instantly forward it to headquarters. The flag of truce having taken a receipt, will be required forthwith to depart, and no one must be allowed to hold any conversation with the party.

86.—Intercommunication.

QUESTIONS.

1. How is communication maintained at all times between all parts of an outpost position, and between the outposts and the main body ?

2. Who is responsible for communication with the main body ?

3. What portions of the outposts do supports keep up communication with ?

4. What do piquets or detached posts maintain communication with ?

5. What must commanders of piquets satisfy

themselves about with reference to their sentries?

6. What should commanders of piquets limit the movements of sentries to?

ANSWERS.

1. By signal or by orderly.
2. The commander of the outposts.
3. With their piquets, with the supports on either flank, and with the reserve.
4. With the piquets or posts on either flank.
5. That sentries are alert and understand their duties.
6. They should move as little as possible, especially if their movements are visible to the enemy.

87.—Readiness for Action.

1. Who decides whether the reserve is to occupy quarters or to bivouac, and whether the supports or reserves may take off accoutrements, off-saddle, unhook and unharness teams, etc.?
2. Must piquets always be ready for action?
3. May men on piquet lay aside their accoutrements?
4. May mounted men attached to an infantry piquet off-saddle?
5. How many men may be allowed to leave the piquet at one time for any purpose?

6. Should men be allowed under any pretence to move about in or in front of the sentry line ?

7. At what hour do the outposts stand to arms, and how long do they remain standing under arms ?

8. How long should the patrols which are sent out an hour or more before sunrise remain out ?

9. When outposts are relieved in the morning, at what time should the relief reach the outposts ?

10. When will the troops relieved return to camp ?

ANSWERS.

1. The commander of the outposts.

2. Invariably.

3. Never.

4. Whenever possible ; but one man should always be ready for instant action.

5. Only a few, according to strength of piquet and the situation.

6. They should not.

7. An hour before sunrise, and they remain under arms until the patrols, which should be sent out at that time, report that there is no sign of an immediate attack.

8. Till after daybreak.

9. They should reach the outposts half-an-hour before sunrise.

10. Not until the patrols report all clear.

88.—Reconnoitring Patrols.

QUESTIONS.

1. With what object are reconnoitring patrols sent out from the outposts? What is their strength and composition?

2. When mounted patrols are employed, when should they move out?

3. When the opposing forces are in close touch, what must mounted patrols maintain?

4. What is the name given to mounted patrols when ordered to remain out in observation in front of the outposts?

5. When may cyclists replace mounted patrols, and when are they specially suited for this work?

6. If mounted troops from the outposts are patrolling to the front, is it necessary to send out infantry patrols by day?

7. At night, on what troops does the duty of patrolling fall?

8. How do infantry patrols work?

9. Is it advisable ever to leave out infantry standing patrols?

10. When an outpost patrol goes out, who does it inform of the direction it is taking?

11. In the event of a patrol not returning when expected, what should be done?

12. When should the hours at which the patrols go out, and also the direction of their route be changed daily?

13. What patrols are always sent out at the same hour?

ANSWERS.

1. With the object of searching the country in front of the outpost position, or of watching the enemy if the opposing forces are in close touch. Their strength may be from two to eight men, under a non-commissioned officer. They may consist of mounted men, cyclists, or infantry.

2. Before daylight, and patrol all approaches which an enemy might use, within distant field artillery range of the *position*.

3. Constant touch with the hostile force.

4. *Standing Patrols*.

5. Where roads are good, cyclists may replace mounted patrols, and by night they are specially suited for this purpose.

6. Only if the country is very thick or the weather misty.

7. On the infantry.

8. They move along tracks or roads in the direction of the enemy for about a mile, and search all the ground where the enemy's scouts might conceal themselves.

9. Occasionally, to watch certain points in front of the outpost position, instead of sending out patrols at stated periods.

10. The nearest sentry.

11. Another patrol should immediately be sent out.

12. When a force halts for more than a day in one place.

13. Those before sunrise.

89.—Standing Patrols.

QUESTIONS.

1. How are standing patrols formed, and what sent out to do ?

2. Are their positions fixed ?

3. How long do they stay out ?

4. When are they of most value ?

5. Do the rules for cossack posts regarding off-saddling apply to standing patrols ?

6. Who issues orders as to the employment of standing patrols ?

ANSWERS.

1. They are formed by two to eight mounted men or cyclists under a non-commissioned

officer, sent well in advance to watch either the principal approaches, or some particular points where the enemy could concentrate unseen.

2. Yes.
3. Several hours.
4. At night, and they spare the horses, as they are not constantly in movement.
5. Yes.
6. The commander of the outposts.

CHAPTER VI.

INFORMATION.

90.—General Principles.

QUESTIONS.

1. What is the first essential factor of success in war ?
2. Whose duty is it to carefully sift all information received before any conclusions are formed ?
3. How may information in war be obtained ?
4. To whom should all documents captured from the enemy, and any information attained which may be of value, be forwarded without delay ?
5. How should the statements of inhabitants, deserters, and other persons bringing in information be dealt with ?
6. What is Reconnaissance ?
7. When is *strategical reconnaissance* required, and with what object ?
8. When is *tactical reconnaissance* required, and for what purpose ?

9. When is *protective reconnaissance* required?

10. When touch with an enemy has once been obtained, whatever the nature of the reconnaissance may be, what is the invariable rule to be observed?

ANSWERS.

1. Timely information regarding the enemy's dispositions and the topographical features of the theatre of operations.

2. This is the duty of the general staff.

3. From maps and reports prepared in peace, by reconnaissance, by means of special agents, from statements of inhabitants, by tapping telephones or telegraphs, from newspapers, letters, telegraph files, and documents found in the area of operations, from statements of deserters, prisoners, and sick and wounded left behind by the enemy.

4. To the nearest general staff officer.

5. It should be taken down and sent to the nearest general staff officer, and the persons themselves sent on as soon as possible.

6. Reconnaissance is the service of obtaining information with regard to:—

(i) The topographical features of the country.

(ii) The movements and dispositions of

the enemy. In the latter case it may be strategical, tactical, or protective.

7. Before the opposing armies are within striking distance of each other, for the purpose of locating the hostile columns, ascertaining their strength and direction of march, and thus affording the commander-in-chief information on which to base his strategical plan of operations.

8. When two forces are within striking distance of each other, for the purpose of discovering the tactical dispositions of the opposing force, and thus furnishing the commander with information on which to base his tactical plan of action.

9. Protective reconnaissance is required by every force at all stages of the operations, whether at the halt, or on the move, to ensure the security of the force against hostile enterprises and prevent the enemy gaining information.

10. It must never be lost without orders from superior authority.

91.—Strategical Reconnaissance.

QUESTIONS.

1. What is the first duty of the independent cavalry?

2. What must generally be disposed of before the independent cavalry can obtain satisfactory information regarding the enemy's columns?

3. When the enemy's cavalry has been defeated, what should the independent cavalry concentrate its efforts upon?

4. What other special tasks, besides that of discovering the dispositions of the enemy's main forces, may be assigned to the independent cavalry?

5. From whom should the commander of the independent cavalry receive definite instructions as to the rôle he is to fulfil, and what should he be allowed in accomplishing it?

6. When may it be advisable for the independent cavalry to avoid a collision with the hostile cavalry?

7. How does the independent cavalry commander obtain information as to the hostile main columns?

8. What is the most suitable unit for actual reconnaissance and for obtaining touch with the enemy?

9. When reconnoitring detachments have to proceed to considerable distances, and touch has to be maintained continuously for several days, how are the patrols, their reliefs, and despatch riders provided?

10. Is the commander of a reconnoitring

detachment alone responsible for the timely arrival of his information at headquarters?

11. In very enclosed country unfavourable to the employment of cavalry, how is reconnoitring performed?

12. Why should commanders of detachments employed on reconnaissance duties be given all available information regarding the enemy, and be told the intentions of the superior commander?

ANSWERS.

1. To obtain for the commander-in-chief the information he requires.

2. The hostile cavalry.

3. Upon breaking through the hostile covering troops and discovering the dispositions of the enemy's main forces.

4. Intercepting the enemy's movements, raiding his communications, and seizing important strategical points.

5. From the Commander-in-chief, but he should be allowed complete freedom of action in accomplishing it.

6. When the hostile cavalry is in superior force, provided such a course is compatible with the fulfilment of its primary duty, which is to obtain and communicate information as to the hostile main columns.

7. He despatches such strategical patrols as

he may consider necessary towards the probable lines of the enemy's advance, and towards any places where signs of the enemy may be found.

8. A patrol of from ten to twelve strong ; larger units will find it difficult to escape observation.

9. It will be necessary to employ one or more *contact troops or contact squadrons*.

10. He must use every endeavour to ensure the timely arrival of his information at head quarters, but the commanders of larger units following in his rear must assist him by pushing forward connecting posts, or other detachments, as the situation demands.

11. Detachments composed of infantry and cavalry will often give good results. The infantry is able to assist the cavalry in the actual fight, and affords the cavalry freedom to reconnoitre, even while its infantry is actually engaged with the enemy.

12. To enable them to distinguish between what is important and unimportant.

92.—Tactical Reconnaissance.

QUESTIONS.

1. What is the most important duty of the protective cavalry ?

2. How does the protective cavalry act when touch with the enemy is gained ?

3. Is it ever advisable to support the protective cavalry with infantry and artillery, in addition to the support which it is the duty of the advanced guards of columns to render?

4. While the advanced troops are engaged with the enemy, how may information also be gained?

5. Does obtaining reliable information as to the enemy's main forces usually entail fighting?

ANSWERS.

1. Tactical reconnaissance.

2. It will assume a vigorous offensive, drive in the enemy's advanced troops, and discover his dispositions and intentions. It may be necessary for the protective cavalry to concentrate to carry out this duty, in which they will be supported by the advanced guards of columns.

3. It will often be advisable, in order to tear aside the screen with which an enemy may have surrounded himself.

4. (i) By personal observation on the part of the commander.

(ii) By general staff or other officers, patrols, or scouts.

(iii) By observations from balloons, flying machines, etc.

5. It will rarely be obtained without fighting.

93.—Personal Reconnaissance by a Commander.

QUESTIONS.

1. When the extent of ground occupied by a large force prevents its commander from personally reconnoitring the whole of the ground on which his troops may be engaged, upon whose reports must he rely?
2. What is the drawback to a personal reconnaissance, which can only be partial?
3. Is time spent in reconnaissance ever wasted?

ANSWERS.

1. The personal reconnaissance by commanders should in this case be limited to commanders of divisions and smaller units, and the commander of the force should rely upon reports which have been rapidly transmitted from the front and prepared for him by his general staff.
2. A personal reconnaissance, which is only partial, may result in too much importance being attached to what has been seen at the expense of what has not been seen.
3. Seldom, and unless the situation demands instant action, a commander of a division or of a smaller unit should never commit his troops to an engagement until he has made a *personal* survey of the ground before him.

94.—Tactical Reconnaissance by Patrols.**QUESTIONS.**

1. Why must officers and scouts employed on tactical reconnaissance be highly trained, have considerable technical knowledge, be quick observers, be possessed of judgment and determination, and, if belonging to mounted arms, be well mounted?

2. Why is it now more difficult to see and reconnoitre than formerly?

3. How is it possible even in these days of increased range of firearms, and smokeless powder to form a fairly accurate idea of the enemy's preliminary dispositions for battle?

4. Who should be detailed to accompany the advanced troops in order to assist in the tactical reconnaissance, and provide the commander with such information on *special points* as he may require?

5. What other superior officers should take part in the tactical reconnaissance?

6. When the opposing forces are near each other, and particularly when the country is close, how may infantry be employed to assist mounted reconnoitring patrols?

7. If the conditions are unsuited to the employment of cavalry for tactical reconnaissance, what must be substituted for mounted patrols?

ANSWERS.

1. Because the commander of a force will form his plan of action on the result of the tactical reconnaissance.

2. The increased range of modern firearms compels scouts to keep further away from an enemy than formerly; whilst the introduction of smokeless powder makes it difficult to locate him, even when his fire has been drawn.

3. If patrols have been in touch with the enemy during his march (when the number, strength, and distribution of his columns can be more readily ascertained), it should be possible, by comparing their reports with those of the scouts engaged in the tactical reconnaissance, to form a fairly accurate idea of the enemy's preliminary dispositions for battle.

4. General Staff officers.

5. Commanders of divisional artillery or their representatives.

6. Infantry may be employed with advantage to attract the enemy's attention by means of surprise attacks, and so enable the patrols to pass through his covering troops at other points.

7. Infantry patrols and scouts should take their place.

95.—Balloon Reconnaissance.

QUESTIONS.

1. What should the technical balloon officer be told in a balloon reconnaissance?

2. What should the observers be fully acquainted with, and what should they be provided with?

3. How may captive balloons and kites be employed?

4. Under normal conditions of ground and weather, what may the radius of action of a balloon be taken as?

5. For extended reconnaissances, how far off from the enemy's artillery should a balloon ascend? Does this rule apply to short observations?

6. At what distances can good observations of artillery fire be made from a balloon?

ANSWERS.

1. What information it is desired to obtain, and he should be given as free a hand as possible as regards time and place of ascent.

2. The situation, and they should be provided with the best maps and glasses procurable.

3. (i) To obtain information of the enemy's position and of the movements of any considerable bodies of troops, when in

such close touch that the cavalry can no longer make progress.

(ii) To obtain targets for direct artillery fire.

(iii) To ascertain the position of one's own troops on the field of battle.

(iv) To ascertain the nature of the ground to the front or to a flank.

4. From five to six miles.

5. It should not ascend within three miles of the enemy's artillery for extended reconnaissances. For short observations it may even ascend close to the most advanced troops.

6. At distances of 7,000 yards, or further in the case of heavy artillery.

96.—Reconnaissance of a Position.

QUESTIONS.

1. In reconnoitring a position with a view to attack, what information regarding the ground should be obtained?

2. When it is intended to occupy a defensive position, what are the chief points to be noted?

ANSWERS.

1. (i) The extent of the position.

(ii) The weak parts of the position.

- (iii) Any point or points the capture of which will facilitate the development of a searching enfilade or reverse fire against a large extent of the position, and thus render it untenable; and to what extent such point or points have been strengthened.
 - (iv) The best line of attack, and the tactical points of which the possession will favour the development of an effective fire against the weak parts of the position.
 - (v) Localities from which covering fire can be directed.
2. (i) The best line to be occupied by the infantry, and the means of protecting the flanks.
- (ii) The positions for the artillery.
 - (iii) The positions which the enemy may endeavour to seize in order to develop an effective fire against the position.
 - (iv) The probable positions of the enemy's artillery.
 - (v) Any points the possession of which might exert a decisive influence on the issue of the fight.
 - (vi) The most favourable lines of attack.
 - (vii) The most favourable ground for the counter-attack.

- (viii) Ground to be occupied by the general reserve, by the cavalry, and by the other mounted troops.
- (ix) Positions to be occupied in case of retreat.

97.—Reconnaissance during Battle.

QUESTIONS.

1. When two forces are engaged, should reconnaissance be continued through the entire action?
2. In addition to patrols working round the flanks and rear, to the work of infantry scouts, and to the cavalry action on the flanks, who should be posted at commanding points on the field of battle, and with what object?

ANSWERS.

1. Yes, arrangements must always be made for continuous observation of the enemy's movements and for the rapid transmission of reports.
2. General staff officers, acquainted with the commander's intentions, to communicate intelligence to headquarters.

98.—Transmission of Information.

QUESTIONS.

1. What does the value of information to a great extent depend upon?

2. What must the authorities sending out reconnoitring parties of any kind arrange for to ensure the rapid transmission of any information which those detachments may obtain ?

3. Who should be specially charged with the duty of maintaining communication between the independent cavalry and Army Headquarters.

4. Should arrangements be made to transmit all really important information direct from reconnoitring detachments to Army Headquarters as well as through the usual channel ?

5. What troops should arrange for the conveyance of information from the protective cavalry ?

ANSWERS.

1. The length of time that has elapsed since the events occurred to which it relates.

2. They must see that means of communication are so organised as to ensure its rapid transmission.

3. An officer of the general staff.

4. Yes.

5. The divisional cavalry should furnish relays for this purpose.

CHAPTER VII.

THE BATTLE.

99.—Considerations which Influence a
Commander in offering Battle.

QUESTIONS.

1. How only can *decisive* success in battle be gained?
2. What must every commander who *offers* battle be determined to do?
3. When should a commander force a battle on the enemy?
4. What are the chief factors of success on the battle field?
5. What is the most fruitful source of defeat?
6. What is an essential consideration in deciding whether an opportunity is favourable or not for decisive action?

ANSWERS.

1. By a vigorous offensive.
2. Assume the offensive sooner or later.

3. When superiority in skill, *moral* or numbers has given him the initiative.

4. Superior numbers on the battle field are an undoubted advantage, but skill, better organization, and training, and above all *a firm determination in all ranks to conquer at any cost, are the chief factors of success.*

5. Half-hearted measures, and lack of determination.

6. Time. A commander who has gained a strategical advantage may have to act at once in order to prevent the enemy bringing about conditions more favourable to himself. On the other hand, ample time may be available before any change can occur in the strategical conditions, and it may then be more effective to act deliberately or to aim at manœuvring an enemy out of a strong position with a view to forcing him to fight under conditions which admit of more certain or more decisive results.

100.—The Offensive and Defensive in Battle.

QUESTIONS.

1. If one of the opposing forces decides to await the attack of the other, what must it be prepared for if victory is to be won?

2. Explain how in a battle the commanders

on both sides may employ defensive or offensive action to suit their respective requirements.

3. What does the defensive imply ?

4. When may the commander of a superior force select to await an attack before assuming the offensive ?

5. When once battle is joined, to what extent is the liberty of manœuvre which the initiative has conferred on the assailant limited ?

6. How can the defender retain equal liberty of manœuvre to that of the assailant in a battle ?

7. Wherein does the weakness of the defensive attitude lie ?

8. What is considered under the heading "attack" and under the heading "defence" respectively ?

9. Under what head are the methods of delaying an enemy without seeking a decisive result considered ?

ANSWERS.

1. For the assumption of decisive offensive action.

2. The original attacker may be thrown on the defensive at any time by a vigorous counter-attack ; or it is open to both to fight a defensive action in one part of the field while endeavouring to force a decision by offensive action elsewhere. Thus each commander may employ defensive

or offensive action to suit his requirements ; the defensive being resorted to when and where it is desired to delay a decision, the offensive where it is desired to obtain one.

3. Loss of initiative, at least for a time, and is usually the consequence of inferiority of some description.

4. When he has been able to choose and occupy deliberately a position in which he can induce the enemy to attack him. Such a position has its true value as a pivot of manœuvre.

5. To what he can do with his general reserves.

6. If he makes skilful dispositions, resists the temptation to subordinate his movements to those of the enemy, and strikes on the first favourable opportunity.

7. In the difficulty of seizing the right moment to assume the offensive, *i.e.*, to deliver a counter-attack. It has been said that counter-attack is the soul of defence.

8. Under the heading of "attack" is considered the action of that force which has gained the initiative and assumes the offensive first. Under the heading "defence" is considered the action of that force which postpones the assumption of the offensive and awaits attack in the first instance.

9. "Delaying action."

THE ADVANCE TO THE BATTLE-FIELD.

101.—Action of a Force on gaining Contact with the Enemy.

QUESTIONS.

1. When an army advances, what troops is it usually covered by?

2. What will the dispositions of an army in approaching the enemy be much influenced by?

3. What is the only means towards the destruction of the enemy's main force on the battlefield?

4. Should the enemy's cavalry not have been found during the forward movement, what duty may the independent cavalry be called upon to perform?

5. When the enemy's advanced troops have been driven in, what should the information thus obtained, combined with information from other sources, enable the commander of the force to do?

6. When an encounter with the enemy is anticipated, where should the commanders of columns be?

ANSWERS.

1. By its tactical advanced guards, and by the protective cavalry, or by a strategic ad-

vanced guard, of which the protective cavalry may form part, while the independent cavalry carries out its strategic mission.

2. The success or failure of the cavalry when it meets the enemy's mounted troops. A successful cavalry will retain for a commander the initiative he has gained, or regain it for him if it has been lost; it will gain him strategic liberty of action, and will thereby enable him to act with certainty and impose his will upon the enemy. On the other hand, as the Psalmist David has written, "If the trumpet has an uncertain sound, who shall prepare for battle?"

3. The defeat of the hostile cavalry.

4. To expose and hamper the dispositions of the hostile columns rather than to seek out his cavalry.

5. To review the strategical situation, and to decide whether to manœuvre to gain time, avoiding an engagement; whether to attack the enemy; or whether to await attack.

6. They should be well forward, usually with their advanced guards. They will then be in a position to meet tactical situations as they occur, and to influence the action of the advanced guard in accordance with the intentions of the commander of the force, and, in the case of a general engagement, to carry out the deployment with the least delay.

102.—Deployment for Action.**QUESTIONS.**

1. When a commander has decided to accept battle, the various columns composing the force will be directed towards the area in which they are to act ; when should the columns leave their march formations ?

2. Before deploying, what is it desirable for each column to do ?

3. How should the deployment be concealed from the enemy ?

4. What is the first object of a commander who seeks to gain the initiative in battle ?

5. When an army possesses a decided superiority in power over its antagonist, how is the development of fire effect usually facilitated ?

6. Explain the two methods by which the envelopment of one or both flanks of the enemy's army may be accomplished.

7. Which is considered the best method of enveloping an enemy's forces, extending the front until his line is overlapped, or by a converging movement of two portions of the army so timed as to bring both simultaneously to the battlefield ?

8. What is the chief drawback to enveloping tactics ?

9. When a commander has not sufficient

troops to justify from the outset an attempt to envelop one or both of the enemy's flanks, how may he decide to obtain the decision of the battle?

ANSWERS.

1. A force when deployed loses much of its powers to manœuvre as a whole; as a rule, therefore, the columns should not leave their march formations until the commander has formed his plan of battle, or until the action of the advanced troops shows that deployment is necessary.

2. To close up and assume a formation of assembly.

3. By the action of the advanced troops.

4. To develop superiority of fire as a preparation for the delivery of a decisive blow.

5. By aiming from the outset at the envelopment of one or both of the enemy's flanks.

6. (i) By continuously extending the front as the enemy's dispositions are discovered until his line is over-lapped.

(ii) By a converging movement of two portions of the army, so timed as to bring both simultaneously to the battlefield.

7. Few methods are more effective than the latter, when successful, for it combines the advantages of enveloping attacks on the battle-

field with a convenient division of the army before the battle. Converging movements, however, demand the most skilful timing, and complete arrangements for inter-communication, for any failure may lay the divided parts of the army open to the risk of defeat in detail by an enterprising enemy.

8. That the commander can seldom keep a large reserve in his own hand after he has once decided on his plan of battle and issued his orders.

9. By manœuvre on the battlefield with a large general reserve which he has retained in his own hand. By keeping a considerable part of his force under control, he is in a position to take advantage of the enemy's mistakes and to choose his own moment for striking, but if this method is to be successful, the size of his army must allow him to keep in close touch with the course of events and be himself where he can "feel the pulse of the battle" in order to strike with his reserve at the right place and time.

THE ATTACK.

103.—General Principles.

QUESTIONS.

1. Is it desirable to attempt to overwhelm the enemy everywhere?

2. What must be done in order to concentrate superior power at a decisive point ?

3. What is the true meaning of the term decisive attack ?

4. What part of an enemy's force should a commander choose as the object of the decisive attack ?

5. Against what part of the enemy's force will the decisive attack usually be delivered, and why is it so effective ?

6. In what manner should the decisive attack be delivered ?

ANSWERS.

1. It is seldom either possible or desirable.

2. A portion of the force must be held in readiness to deliver the decisive attack, while the remainder is employed to develop the attack, and to wear down the enemy's power of resistance.

3. The term decisive attack does not imply that the influence of the other attacks is indecisive, but rather that it is the culmination of gradually increasing pressure relentlessly applied to the enemy at all points from the moment when contact with him is first obtained.

4. That part the defeat of which will give the greatest results.

5. Usually against one or other of the

enemy's flanks. The moral effect of an envelopment which threatens an enemy's line of retreat, and enfilades his front, is always great.

6. It should be struck unexpectedly and in the greatest possible strength.

104.—Preliminary Measures.

QUESTIONS.

1. Why is it important that systematic arrangements for obtaining, sifting, and transmitting information throughout the battle should be made?

2. Upon what information does a commander of a force usually base his plan of battle?

3. What are the principles by which the commander of a force and subordinate commanders will be guided in framing orders for an attack?

4. Who should be assembled by each commander who issues orders for an attack and with what object?

5. Mention some of the factors which have to be weighed in deciding the question of frontage to be allotted to the various parts of an attacking force?

6. Is it desirable to give more than general indications as to how the problem of attack is to be solved?

7. What is the general principle to be adhered to in attack orders?

8. What proportion should the attacking force be to that of the enemy holding the position?

9. How is the attacking force ordinarily divided?

10. As the opposing forces draw near, what becomes of the cavalry?

11. How should the artillery be distributed?

12. Where artillery forms part of a unit allotted to the general reserve, what is usually done with it?

13. Is there any exception to the artillery of the reserve being allotted a special rôle?

14. During an engagement, what does the position of a commander depend a great deal on?

15. Where should subordinate commanders take up their positions?

16. Should a commander leave the position to which he has directed that reports are to be sent, what must always be done?

ANSWERS.

1. Because it will frequently happen that a suitable objective for the decisive attack will be discovered only after long and severe fighting.

2. It will usually be obtained by preliminary reconnaissance.

3. (i) A definite object or task should be assigned to each body of troops, the actual limits of frontage being specified as far as possible.
- (ii) The direction of the attack to be made by each body of troops should be distinctly stated.
- (iii) Most careful arrangements should be made to ensure that attacks intended to be simultaneous should be so in reality.
- (iv). The choice of the manner in which the task assigned to each body of troops is to be performed should be left to its commander.

4. His subordinate commanders, if possible, in view of the ground over which the attack is to take place, to whom he should explain his orders, and satisfy himself that they thoroughly understand their respective tasks.

5. They must vary with the circumstances of each battle. Ground, time conditions, the information available, the relative value of the opposing troops, the possibility of gaining a surprise, are some of the inconstant factors to be weighed.

6. It is neither possible nor desirable.

7. That the enemy must be engaged in sufficient strength to pin him to his ground, and

to wear down his power of resistance, while the force allotted to the decisive attack must be as strong as possible.

8. It may be taken that against an enemy of approximately equal fighting value, where the attacking artillery is slightly superior, a force fully equal to that of the enemy holding the position (excluding the probable general reserve) is the least that will suffice for this purpose.

9. Into firing line and supports, with local reserves, disposed in unequal numbers along the front, according to the nature of the ground, the frontage varying from one man to three or more men per yard. The decisive blow *must* be driven home.

10. It will be allotted one or more positions of readiness, where the ground is favourable to cavalry action, and where it can best act in accordance with the commander-in-chief's plan.

11. So that every available gun is ready to come into action without delay when required to support the infantry.

12. It will usually be given a special rôle by the commander-in-chief.

13. Yes, when the general reserve is required to carry out or complete a wide enveloping movement it will be accompanied by its complement of artillery.

14. The size of the force he commands.

With a small force it may be possible to exercise personal supervision, but with very large forces the commander-in-chief should usually be well in rear, beyond the reach of distraction by local events, and in signal communication with his chief subordinates.

15. Where they can obtain a good view of the area in which their commands are operating, and which admit of easy communication with their immediate superior and the units under their command.

16. A staff officer must be detailed to receive and forward all reports and orders that may come in.

105.—The General Conduct of the Attack.

QUESTIONS.

1. What troops protect the artillery when it takes such preparatory steps as will enable it to open fire as soon as a target is presented ?

2. In the early stages, while the infantry are deploying and developing the attack, what is the action of the artillery ?

3. How will artillery generally be protected ?

4. When guns are in an exposed position, how are they protected ?

5. What should the escort to guns consist of: first, in the case of field artillery ; second, in the case of heavy and mountain artillery ?

6. Who is responsible that guns ordered into action are provided with a suitable escort?

7. Who issues the necessary instructions to the escort for guns?

8. Against what objective should artillery commanders direct their fire during the advance of the infantry, and what must they always remember?

9. What does the attainment of superiority of fire over the enemy require between artillery and infantry?

10. Can quick-firing guns maintain a rapid fire throughout a battle?

11. When should artillery use rapid fire?

12. What must the advance of the firing line be characterized by?

13. Why is it so absolutely necessary for the troops to whom the rôle of wearing down the enemy's resistance is allotted to act with vigour?

14. When once the firing line comes under fire, how will its further advance be greatly assisted?

15. What must all leaders, down to those of the smallest units, endeavour to apply, at all stages of the fight?

16. What does the establishment of superiority of fire involve after the infantry supported by the artillery and machine guns has forced its way forward to close range?

17. When within close infantry range of each other, what will each side try to do?

18. What will the attack on a position more often than not resolve itself into?

19. What should be done with all important tactical points, such as buildings, small woods, etc., when gained?

20. What troops will often find opportunities for strengthening localities or fire positions, which have been gained by the firing line, and who may be attached to them with advantage?

21. When will machine guns be specially valuable?

22. Within what range can machine guns normally support an attack given that they are well concealed and provided with good cover?

23. Can machine guns ever advance within *close* infantry range of the objective?

24. Is it ever expedient for the firing line during its advance to entrench itself?

25. When should the advance be resumed by the firing line from an entrenched position?

26. When should artillery be entrenched?

ANSWERS.

1. The advanced guard.

2. Fire should not be opened with more guns than are necessary to accomplish the task in hand, the remainder being kept in positions of readiness.

3. Generally by the distribution of the other arms.

4. An escort should be detailed.

5. It should consist, when possible, of mounted men in the case of field artillery, and of infantry in the case of heavy or mountain artillery.

6. The superior officer who orders the guns into action.

7. The senior officer present, but the commander of the escort will be given a free hand in carrying them out.

8. Against what is, for the time being, the most important target, always remembering that *the object of their fire is to assist the infantry advance.*

9. The closest co-operation.

10. No.

11. When the infantry firing line is seen to be in need of assistance to enable it to advance.

12. *By the determination to press forward at all costs.*

13. In order to prevent the enemy from thinning his line so as to reinforce the point against which he expects the decisive attack will be directed, and to force him to use up his reserves.

14. By covering fire from the rear, and by

the mutual support which neighbouring units in the firing line afford one another.

15. They *must endeavour to apply, at all stages of the fight, the principle of mutual support.*

16. A gradual building up of the firing line in good fire positions, usually within close infantry range of the enemy.

17. Exhaust the enemy's power of endurance and force him to use up his reserves, while keeping its own intact.

18. Into a series of distinct engagements, each raging round a different locality, and each possibly protracted over many hours.

19. They should at once be put in a state of defence, so that attempts on the part of the enemy to recapture them may be defeated, and they may be made to serve as supporting points to the attack.

20. Local reserves, and to assist them, detachments of engineer field companies may be attached to them with advantage.

21. In bringing a sudden fire to bear from strengthened localities, both in order to cover a further advance and to assist in defeating counter attacks.

22. Within effective infantry range of the enemy.

23. Occasionally, when good opportunities for a concealed advance present themselves.

24. As a rule, positions affording natural cover will be chosen, but if none exist, and the intensity of the hostile fire precludes any immediate advance, it may be expedient for the firing line to entrench itself.

25. An energetic advance must be resumed at the first possible moment.

26. Artillery should usually be entrenched when unable to find natural cover.

106.—The Decisive Attack.

QUESTIONS.

1. What should the development of the battle enable the commander to do, if he has not done so before ?

2. How should the general reserve be moved into position, when the commander has decided where to deliver the decisive attack ?

3. What will the launching of the general reserve in the attack be the signal for ?

4. At what period of the battle do the chances of successful cavalry action increase ?

5. For effective intervention on the part of the cavalry, what is required ?

6. Where should the cavalry commander be during the battle ?

7. When seizing a favourable opportunity for cavalry action, what should be borne in mind by the cavalry commander ?

8. If the cavalry comes into action, what should the infantry do?

9. In selecting the objective for the infantry attack, what must a commander consider?

10. What is the principle of the employment of artillery in a battle?

11. As the infantry advance to the attack, every available gun will be concentrated against its objective, how long will the artillery fire be continued?

12. In order to reduce the danger from shells bursting short during the last stages of the infantry advance, what must artillery commanders keep themselves informed about?

13. At the last stage of the attack, how far forward must a portion of the artillery be pushed and with what object?

14. What is the climax of the infantry attack, and how is it made possible?

15. From where will the fact that superiority of fire has been obtained usually be observed?

16. Where must the impulse for the assault come from, and whose duty is it to carry it out?

17. Should it be necessary to give the impulse for the assault from the rear, what should be the procedure?

18. Should an opportunity for closing with the enemy arise at another point of the battle

field than where the decisive attack is being delivered, ought such an opening to be seized?

19. What is the result of effecting a lodgement in a portion of the position?

20. What must troops that have penetrated the line of defence be prepared to meet?

21. If, during the attack, the enemy attempts to counter-attack, what should the troops threatened do?

22. As a rule, what will be the most effective counter-measure to a counter-attack attempted by the defenders?

23. Should it be found impossible during one day to justify an assault being delivered, how should the night be employed?

24. After a successful assault, what should the troops do?

25. As soon as the position is captured, what should the assailants' artillery do?

26. Do engineer field companies play a part in the capture of a position?

ANSWERS.

1. To make up his mind when and where to deliver the decisive attack.

2. As secretly as possible.

3. For the application of the greatest possible pressure against the enemy's whole front, all troops engaged must co-operate in completing the enemy's overthrow.

4. When the crisis of the battle approaches, and the enemy becomes morally and physically exhausted.

5. The concentration of as large a part of the cavalry as possible is required.

6. Where he can best watch the progress of events, keep in touch with other commanders, and carry out the instructions of the commander-in-chief, with whom he should be in signal communication.

7. That the result should promise to have a *direct influence* upon the decision of the battle.

8. Take immediate advantage of the results of the cavalry action.

9. Whether he can develop the full power of his artillery against it. All infantry attacks should be not only prepared, but supported by artillery if possible.

10. That *the greater the difficulties of the infantry, the closer must be the support of the artillery.*

11. Until it is impossible for the artillery to distinguish between their own and the enemy's infantry.

12. As to the progress of their infantry.

13. To within close artillery ranges, so as to be able to deal with possible counter-attacks, and to give the infantry immediate assistance when the fluctuations of the fight make this necessary.

14. The assault, which is made possible by superiority of fire.

15. From the firing line; it will be known by the weakening of the enemy's fire, and perhaps by the movements of individuals or groups of men from the enemy's position towards the rear.

16. From the firing line, and it is the duty of any commander in the firing line, who sees that the moment for the assault has arrived, to carry it out, and for all other commanders to co-operate as soon as possible.

17. All available reinforcements will be thrown into the fight, and as they reach the firing line, will carry it with them and rush the position.

18. At once, and a local assault delivered.

19. It weakens the defender's hold on the remainder, and may even force him to fall back along his whole line.

20. A local counter-attack, for the enemy will probably endeavour to recover the ground which has been lost.

21. Hold on defensively and endeavour to gain time.

22. To press the decisive attack with renewed vigour, for *success at the vital point will mean ultimate success at all points.*

23. In bringing artillery forward and pro-

viding cover for the guns, whilst the firing line should be re-organized, or relieved by fresh troops if possible, its cover improved, and if necessary a further advance made with a view to the resumption of the fight under more favourable conditions at dawn.

24. Occupy the position that has been seized, pursue the enemy with their fire, and re-form in readiness either to follow up the retreating enemy or to repel all attempt to retake the position.

25. As much artillery as possible should be sent rapidly forward to the captured position in order to break down any resistance that may be offered from a second position, to support the pursuit, and to resist counter-attacks.

26. Field companies of engineers should be moved forward to strengthen the position against counter-attack or improve the communications in case of necessity.

THE DEFENCE.

107.—General Principles.

QUESTIONS.

1. What largely influences the manner in which a commander, who decides to await the enemy's attack, gives effect to his decision?

2. When may positions be prepared long in advance for defence?

3. May a commander manœuvre in order deliberately to occupy a position which the enemy is forced to attack?

4. Under what conditions may a commander be compelled to deploy his troops to meet attack on whatever ground is to hand?

5. Whatever may be the strategical situation, what are the underlying principles of defensive action which aims at decisive results?

6. What should be the aim of all commanders in the choice of a position and its preparation for defence?

ANSWERS.

1. The strategical situation.

2. Where the nature of the theatre of war so narrows the possible lines of operation that the enemy's movements can be foretold within definite limits.

3. A skilful commander may be able to do so.

4. When he has lost the initiative.

5. No natural or artificial strength of position will of itself compensate for loss of initiative when an enemy has time and liberty to manœuvre.

6. To economise the power expended on defence in order that the power of offence may be increased, in other words, *the soul of defence is counter-attack.*

108.—Preliminary Measures.**QUESTIONS.**

1. In all preliminary measures in war, what is the first requisite?

2. What must the cavalry ascertain before a force deploys, even when the enemy's line of advance may be foreseen?

3. What advantage does a force which is kept in hand, and covered by the necessary protective troops, retain?

4. What does the amount of defensive preparation possibly depend on?

5. What should the preliminary measures for defence be based upon?

6. Should the extent of ground actually held be limited by the numbers available for holding it?

7. May the extent of ground reconnoitred and prepared for occupation be larger than that which is to be held at first?

8. When may a position be considered to be too extended to be held with a view to decisive action?

9. What must be the first consideration in selecting a position?

10. When may a position as regards ground be considered to be relatively well selected by the commander who has decided to act on the defensive at the outset of a battle?

11. What is the most favourable ground for counter-attack ?

12. What is the most dangerous ground to have in the vicinity of a position ?

13. The defence must have freedom of manœuvre, what does this demand ?

14. Mention two very important factors in defensive operations.

15. Have cavalry a rôle in the preliminary dispositions for the defence of a position ?

16. Into what two main portions should the defender's troops be divided ?

17. How should the defender's artillery be posted ?

18. When should the guns of the defence be dispersed and concealed ?

19. When may it be advisable to avoid an engagement with the attacker's artillery during the opening stages of the battle ?

20. How are the infantry allotted to the defence of a position divided ?

21. When should a position be divided into sections ?

22. What does the extent of a section for defence depend upon ?

23. How should the supports to the firing line in defence be posted ?

24. Where should the local reserves be placed ?

25. How are the local reserves of flank sections of defence usually posted?

26. Where should the general reserve be placed?

27. Should the situation be so undeveloped that the direction in which the counter-attack can best be launched cannot be determined, where may the general reserve be placed until the situation develops?

28. What must the commanders of the reserves, whether local or general, make themselves acquainted with?

29. Why should the general reserves be given a proportion of mounted troops?

30. Are guns told off to accompany the general reserve in the decisive counter-attack?

31. What will the number of guns told off to accompany the general reserve when it issues in counter-attack largely depend upon?

32. Should the commander of the general reserve be named in the orders for the occupation of the position?

33. In the defence of a position, are all the sections of defence equally manned, and how are troops detailed for the defence of woods and other special tactical points?

34. Subject to such modification as the ever varying conditions of each case shows to be necessary, what may be taken as the utmost

number of men per yard, of the whole frontage of the position, that can be usefully employed in one line ?

35. When will a less number of men than one per yard of the entire front be sufficient ?

36. What does the strength of the supports required to replace casualties and to infuse fresh vigour into the defence depend upon, and what proportion roughly should they bear to the firing line ?

37. How are portions of a position, where the conditions are unfavourable to defence, best defended ?

38. How is the strength of the local reserves estimated ?

39. Why should every position be strengthened as far as time admits ?

40. What is the first step in strengthening a position ?

41. What is the chief point to keep in view in providing cover, and what other facilities must also be considered ?

42. Should trenches be sited in exposed positions, such as the tops of bare hills or of prominent salients ?

43. What should all excavations be made to assimilate ?

44. When are salients, and advanced posts, considered a weakness ?

45. As a general rule, what should be done with pronounced salients and with ground generally that hides the ground in front of it from the main position ?

46. When are advanced posts of value in breaking up an attack ?

47. Generally speaking, it is easier to arrange covered communication with high-sited trenches, but what disadvantage do these often entail, and how may it be possible to avoid it ?

48. What are the advantages and disadvantages of trenches which are placed at the foot of slopes ?

49. What are the most valuable trenches for surprising the attackers at critical periods ?

50. Where may deep trenches be usefully provided to give cover to the supports or to the garrisons of the advanced trenches till they are required ?

51. Why are communicating trenches usually necessary ?

52. With what object should alternative emplacements and positions for guns be prepared ?

53. Should there be communications between these alternative emplacements for guns ?

ANSWERS.

1. Information.

2. The direction of march and the strength of the hostile columns.

3. The power to assume the offensive at once if a turn in the tide of events makes this advisable.

4. On the time available, which in turn depends mainly on the strategical situation.

5. Upon as thorough a reconnaissance as possible of the area which the plan of operations makes most suitable for accepting battle.

6. Yes.

7. Yes, and it should admit of various alternative distributions of the force to meet the various courses of action open to the enemy.

8. If the frontage occupied in battle is so great as to reduce the force kept in hand for the ultimate assumption of the offensive much below half the total force available.

9. The influence of ground upon the effect of fire.

10. When it affords moderate facilities to the defenders for the co-operation of infantry and artillery fire, and none to the attack.

11. That which lends itself most to the co-operation of all arms, and especially that which allows the advance of the counter-attack to be covered by artillery and infantry fire.

12. Ground from which any portion of the front or flanks of the position can be enfiladed.

13. Sufficient depth in the position and good covered communications behind it.

14. Concealment and cover from fire.

15. Cavalry, supported by the other arms when necessary, may do much to screen the main position, to induce the hostile commander to deploy prematurely, and to fatigue his troops in groping for skilfully covered flanks.

16. One for the defence of the position, the other for the decisive counter-attack.

17. So as to command the enemy's lines of approach and his probable artillery positions.

18. When the enemy's artillery is known to be very superior, the defenceless guns should usually be dispersed and concealed so that a converging fire can be brought against the probable lines of advance.

19. When the enemy's artillery is very superior.

20. Into the firing line, with supports if required, and the local reserves.

21. When it is extensive, each of which should be assigned to a distinct unit, and have its firing line and local reserve.

22. The power of control of one commander.

23. Close to it, having covered communication with it and under complete cover from shrapnel fire; if this is not possible, the firing line should be self supporting.

24. Where they have facilities for local counter-attack and good cover while waiting for the opportunity.

25. In echelon in rear of the flanks, except when the flanks are otherwise secured.

26. In rear of that portion of the position which, from the general situation and the nature of the ground, offers the best line of advance for the counter-attack.

27. In rear of or near the flank on which the enemy's decisive attack is most likely to be made.

28. All ground over which they may have to act.

29. To enable the commanders to keep a watch, by means of patrols, on the progress of the engagement, so that they may anticipate orders, and have their troops formed up ready to move as soon as they are called for.

30. Part of the artillery should usually be told off for this purpose, but this should not prevent the employment of those guns from the beginning of the battle if they are required.

31. Upon the extent to which it is possible to support the decisive counter-attack with artillery fire from the main position.

32. Yes, and if not already provided, he should have a sufficient staff allotted to him.

33. Not necessarily, a careful reconnaissance will show where the ground can be thinly held, but it is never safe to leave any ground altogether unprotected, however difficult it may

appear. The defence of woods and other special tactical points should be entrusted to complete units.

34. Not more than one man per yard.

35. When the ground is naturally very favourable to defence, or can be made so artificially.

36. It varies with the probable conditions of the battle, and may be roughly from one-fifth to half of the firing line.

37. By means of local reserves rather than by strengthening the firing line.

38. Roughly at about that of the firing line with its supports.

39. With the object of reducing the number of men required to hold it, and thereby adding to the strength of the general reserve.

40. To improve the field of fire, both by clearing the foreground and by taking ranges to all prominent objects distant 500 yards or more from the position.

41. That fire from it should be effective, but facilities for concealment, control, communication, and for the supply of ammunition, food, and water must also be considered.

42. Not if it can be avoided.

43. The back ground.

44. They may generally be considered as existing evils, and are a source of weakness if

they are exposed to artillery fire which cannot be answered, and if they cannot be supported by effective infantry fire.

45. As a rule, such positions had better be left unoccupied, and the ground between them and the main position be defended either by bringing a cross-fire on to it from other parts of the position or by strong entrenchments, which are within supporting distance.

46. When they can be supported effectively by fire from the main position.

47. A certain amount of dead ground in front of the position. It is often possible to avoid this by arranging for fire from one trench to sweep the ground in front of another and *vice versa*.

48. They are easily concealed, and usually admit of a more grazing fire than high sited trenches, but the supply of reinforcements, ammunition, food, and water to those under fire frequently involves difficulties.

49. Trenches which can bring fire to bear at decisive range on to the ground over which the attack must pass, and which are themselves concealed from the attackers in the earlier stages of the battle.

50. In rear of the crest line.

51. In order to ensure covered connection with the fire trenches.

52. To enable the guns to employ direct fire during the later stages of the battle.

53. Communication should be prepared or improved.

109.—General Conduct of the Battle.

QUESTIONS.

1. If the enemy's intention to attack is evident, what becomes of the defender's advanced troops who have been screening the position ?

2. Where should the mounted troops be assembled ?

3. Until the attack is seen to be serious, how should the firing line of the defence be disposed ?

4. As the attack develops, what is the action of the defender's artillery and infantry ?

5. What is the most effective fire that can be brought against the enemy's firing line which is already engaged in front ?

6. How are the defender's machine guns best utilised ?

7. The enemy will not ordinarily make a serious attempt to drive his attack home at all points, and it is very important for the defenders to discover, as soon as possible, where he

intends to apply his main strength. How can this object usually be attained?

8. Before either side can deliver a decisive attack, it is to be expected that there will be a prolonged fight for fire superiority. During this struggle, what is the object to be aimed at?

9. How can the attack be best repulsed at its final stage?

10. What is the principle on which local counter-attacks should be made as regards strength?

11. Are local counter-attacks against strong tactical points advisable, and should a successful local counter-attack be followed up?

12. How should local counter-attacks be covered?

13. If the enemy succeeds in penetrating the position at any point, what should be launched against him?

14. Should local reserves be employed to reinforce the firing line?

15. What should every man in the defender's firing line be made to understand?

16. When the enemy's attack is pushed home, what must the defender's artillery do at all costs?

17. What positions must be occupied at the final stage of the attack by the artillery of the defence?

ANSWERS.

1. The advanced troops should be withdrawn in sufficient time to prevent them becoming closely engaged and masking the fire from the main position, or from any advanced posts which are to be held.

2. In positions of readiness where they have scope for action and the ground is suitable; such positions will usually be found on the flanks. As large a body of cavalry as possible should be concentrated under the cavalry commander, whose duty it is to keep touch with the course of the battle and seize opportunities for carrying out the commander-in-chief's instructions as they arise.

3. It should be formed of a few observers or skirmishers, the remainder of the troops allotted to the defence of the position being kept under cover.

4. The defender's artillery and infantry must co-operate in crushing it with fire, and preventing it from establishing itself within close range.

5. Enfilade fire will be the most effective, and for this machine guns, especially during the later stages of the attack, are of great value.

6. To sweep with fire exposed spaces which the enemy must cross, or roads and defiles

through which he must advance, and they will also be of service to flank salients or advanced posts, and to assist in protecting the flanks.

7. By compelling him to employ his reserves earlier than he had intended. †

8. To drive back the enemy's firing line so that he may be forced to use up his local reserves to restore the battle.

9. By means of vigorous local counter-attacks.

10. A local counter-attack should compel the enemy to expend more force than is involved in its delivery.

11. They are usually inadvisable, and for the same reason success should not be followed up too far.

12. By both artillery and infantry fire, enfilade fire being particularly effective, but the original firing line should not leave its trenches.

13. A local counter-attack.

14. No, they should not.

15. That assistance will be given if required in the form of a local counter-attack.

16. Artillery which has withheld its fire, or been compelled to cease fire, must re-open against it at all costs.

17. It must occupy direct fire positions, and this will rarely be possible unless they have been previously prepared and occupied.

110.—The Decisive Counter-attack.**QUESTIONS.**

1. What is the most important thing that the commander of the defending side, who aims at a decisive victory, has to decide ?

2. What is the most favourable moment for issuing in decisive counter-attack ?

3. Is it always advisable to wait until the enemy has expended his reserves before delivering the decisive counter-attack ?

4. What considerations influence the direction of the counter-attack ?

5. How should the counter-attack be delivered ?

6. What are the principles on which the counter-attack should be carried out, and wherein does it differ from any other attack ?

7. How should the advance of the decisive counter-attack be covered ?

8. Should the assumption of the offensive be confined to the advance of the general reserve ?

9. Wherein does the action of cavalry essentially differ from that of the other arms in connection with the decisive counter-attack ?

10. How will the cavalry which is specially allotted to the general reserve usually be em-

ployed when the latter delivers its decisive counter-attack?

11. If as often happens there is little time for issuing detailed orders for the decisive counter-attack, what should be carefully pointed out to all subordinate commanders?

12. What should all subordinate commanders explain to the troops?

ANSWERS.

1. The right time for changing from the defensive to the offensive, which a commander usually effects by delivering a decisive counter-attack with his general reserve.

2. When the enemy has expended his reserves in endeavouring to storm the entrenchments.

3. By no means. If the defending force is carefully screened by its covering troops, or if the enemy is led to believe that the front is much longer than it really is, he may commit mistakes, such as exposing a portion of his force without hope of support from the remainder, unduly extending his front, exposing his flanks, or posting his reserves in the wrong place; and these mistakes, all of which are favourable to the counter-attack, may occur at any period of the engagement, even at the very beginning.

4. The strategical situation, the dispositions

of the enemy, or the nature of the ground, but although opportunities for breaking the centre may sometimes occur, the decisive counter-attack will usually be most effective if it be delivered against a flank, and in such a direction as to threaten the enemy's line of retreat.

5. It should come in the form of a surprise, and should be carried through with the utmost vigour and resolution, and all ranks should understand that they must press forward until the enemy is driven from the field.

6. The principles are the same as in any other attack, but there will be less time for preparation.

7. By all the artillery available, firing as rapidly as possible on the enemy's infantry, and keeping a sharp look out for his reserves.

8. No. Any decisive success which the general reserve obtains should be the signal for the whole of the defender's troops to press the enemy with the utmost vigour.

9. Cavalry being essentially an arm of opportunity, it is not possible to limit its co-operation in the decisive counter-attack to the moment of the advance of the general reserve. It may well happen that the cavalry may be able to create, by its action, the occasion for launching the counter-attack.

10. In covering its flanks.

11. The direction and manner of carrying it out.

12. The direction of the counter-attack, and impress on them the importance of getting to close quarters as quickly as possible.

THE ENCOUNTER BATTLE.

III.—General Principles.

QUESTIONS.

1. In the encounter between troops in motion what does success largely depend upon?

2. In order to obtain the initiative in the encounter between troops in motion, what must be done, and what will it to a great extent depend upon?

3. In the chance encounter detailed information as to the enemy and the ground will usually be lacking. Under these circumstances, what becomes the deciding factor as to whether an attack shall be delivered or not?

4. When the enemy is met more or less unexpectedly, how must commanders of protective troops be prepared to act?

5. In the encounter battle, what points should the commander remember in coming to a decision whether to attack or not?

6. When a commander has decided to attack, what is of the utmost importance?

7. Why is it more than ever important in the encounter battle that each unit should keep those on its flanks informed both of its own progress and of what it knows of the general situation?

8. In encounter battles it is probable that flank guards, or columns of troops other than those in actual contact with the enemy will be left without orders; what is the duty of the commanders concerned?

9. When will the engagement between troops in motion approximate more and more to the attack of an enemy in position?

10. Should it become clear that the enemy has succeeded or probably will succeed in deploying first; why is it so necessary to act with caution, and under those circumstances, what instructions should be given by the commander to his advanced troops?

ANSWERS.

1. The initiative and enterprise of commanders, and the degree in which all arms co-operate.

2. It is essential to deploy before the enemy can do so, and it will depend to a great extent upon the action of the advanced troops whether this can be done or not.

3. The general strategical situation.

4. On their own initiative, while considering the eventual employment of the troops they cover.

5. (i) That the enemy will probably be in an equal state of uncertainty.

(ii) That when once two forces are in close contact, it is usually difficult to avoid an engagement.

(iii) That the advantages of the initiative and of the offensive should only be abandoned for weighty reasons.

6. Rapidity of action.

7. Because in these encounters the formal issue of orders will seldom be possible. It is, therefore, more than ever important that each unit should keep those on its flanks informed both of its own progress and of what it knows of the general situation.

8. On hearing the sounds of battle, to take steps to ascertain the situation, and to co-operate in whatever way appears to them most suitable.

9. When once the initiative has been secured, and the enemy has been attacked along his whole front.

10. Because there is then a danger that a precipitate advance may give the enemy an opportunity to envelop the force before it has deployed, or to defeat the several parts of the force in detail as they reach the battlefield.

Under these circumstances the advanced troops should be directed to delay and hold off the enemy, pending the development of sufficient force.

PURSUIT, RETREAT AND DELAYING ACTION.

112.—The Pursuit.

QUESTIONS.

1. The enemy may elect to fight until his power of resistance is exhausted, and he is driven from the battlefield, or he may endeavour to break off the fight and withdraw before he has finally committed his whole force. In the former case, describe what the action of the assailant's infantry and artillery should be, and also the tactics to be adopted by the successful assailants in the latter case.
2. Why must the pursuit be taken up by as large a body of mounted troops as possible?
3. Are cavalry commanders always expected to pursue vigorously in default of special orders?
4. If any doubt exists as to the direction of retreat of the enemy's main body, what should be done?
5. When the direction of the retreat is known, how should the cavalry and horse artillery of the pursuit be handled?

6. When will the main body of the force take up the pursuit?

7. Describe the circumstances under which a direct pursuit by the main body will rarely lead to decisive results.

8. When a direct pursuit is not likely to lead to decisive results, how should the pursuit usually be conducted?

9. How must all pursuing troops be prepared to act?

ANSWERS.

1. In the former case, the infantry and artillery, which have penetrated his position, must follow up the retreating enemy and continue to press him to the utmost, but the exhaustion, both of personnel and stores, at the end of a protracted battle, makes such a pursuit only temporary, and it will rarely lead to decisive results. In the latter case, it will usually be necessary to re-form a part of the force at least, and to replenish ammunition and supplies. The pursuit under these circumstances must be taken up by as large a body of mounted troops as possible.

2. In order that the enemy may be allowed no respite while the bulk of the pursuing force is being re-formed.

3. It is their duty to do so.

4. Every road by which it could have retreated should be reconnoitred, a short delay being generally preferable to committing the cavalry in a wrong direction.

5. Only sufficient mounted troops to keep touch with his movements should pursue the enemy directly, while the greater part of the cavalry and horse artillery should aim at the enemy's flanks, and also try to anticipate him at some defile, bridge, or other vital point on his line of retreat.

6. At the earliest possible moment, and will continue it by day and night without regard to the exhaustion of the men and horses so long as the enemy's troops remain in the field.

7. If the enemy succeeds in breaking off the fight before a definite decision has been reached, he will probably have a portion of his reserves in hand and will use his freshest troops to cover his withdrawal; he may even be prepared to sacrifice the troops on whom this duty devolves to ensure the safety of the remainder. Under these circumstances a direct pursuit by the main body will rarely lead to decisive results.

8. The action of the mounted troops will be to follow the enemy directly, in only sufficient force to keep touch with his movements, while the greater part of the cavalry and horse artillery should aim at his flanks, but such in-

fantry and artillery as are in hand should be at once despatched to assist that body of cavalry which is directed against the flank of the enemy's main force with a view to completing its overthrow, while the remainder will continue to press the enemy's force which is covering the withdrawal.

9. With the greatest boldness, and be prepared to accept risks which would not be justifiable at other times.

113.—The Retreat.

QUESTIONS.

1. It is the duty of a commander of a force to be ready for any emergency which may arise during the course of a battle; what should his general staff, therefore, be prepared to submit to him at any time?

2. How may a defeated army to some extent be saved the demoralization which usually accompanies a defeat?

3. In order to restore the *moral* and efficiency of the fighting troops during a retreat, what should be deposited alongside the roads which have been cleared for the withdrawal of all vehicles which are not essential to the fighting troops?

4. When retreat appears inevitable, to whom

should the routes to the rallying position be confidentially communicated?

5. What is the minimum distance that the rallying position should be from the battlefield?

6. When retreat has been decided upon, how soon should the rallying position be occupied, and at first by what troops?

7. Describe how a defeated force retires to the shelter of the rallying position to reorganise.

8. What precautions should be taken along the selected line of retreat to protect the force retiring from being intercepted by the enemy's mounted troops?

9. What danger should commanders of retreating troops at all times recognise to be most carefully to be guarded against, and how is this danger best met?

ANSWERS.

1. Proposals for a retreat, and so allow him and his troops to devote their entire energies to the defeat of the enemy.

2. By selecting rallying positions, organising a covering force, and arranging for the early withdrawal of all transport.

3. Supplies of ammunition and food.

4. To commanders.

5. It should never be so close to the battlefield as to come at once under the fire of the enemy.

6. As soon as possible by some portion of the artillery, and by complete units of infantry.

7. The cavalry and other mounted troops, aided by a strong force of artillery, will check the enemy's advance, and the remainder of the force, with the exception, if possible, of a rear guard in support of the mounted troops, will move as rapidly as possible to the shelter of the rallying position and there reorganise.

8. Steps should be taken immediately to secure any bridges, defiles, or other vital points on the line of retreat, at which the enemy's mounted troops might intercept the force.

9. Their greatest danger will arise from attacks in flank delivered by the enemy's mounted troops and horse artillery; if possible, therefore, they should take precautions that all ground commanding their line of retreat is occupied by flank guards.

114.—The Delaying Action.

QUESTIONS.

1. If a commander decides to offer battle in order to await the arrival of some other portion of the army, how should he dispose of his force?

2. When his object is to act as a covering force, or to gain time, what will influence a

commander in the choice of the tactics he adopts?

3. What is the delaying power of a numerically inferior force greatly affected by?

4. When may the delaying power of a force be very great?

5. Under what conditions can a comparatively small force exhaust the offensive energy of one which is much larger?

6. If a small force accepts battle in a position which is liable to envelopment, or in a country where the enemy has liberty to manœuvre, how only can it be expected to extricate itself?

7. Where a delaying force can await an enemy, who is advancing through difficult country, on ground where it can manœuvre freely, how can it fulfil its rôle in a most effective manner?

8. What must be the guiding principle in all delaying actions?

9. Should a delaying force accept battle?

ANSWERS.

1. The force which is actually on the field when the battle is accepted will be disposed as that which prepares the way for the assumption of the offensive, while the force whose arrival is expected may be looked upon as the general reserve with which the decisive blow is dealt.

2. The strategical situation and the nature of the country in which he is operating.

3. By ground.

4. When a force is occupying a strong position which cannot be turned, or can only be turned by a wide movement through difficult country.

5. Where a series of strong positions difficult to turn exists, a small force acting on rear guard action principles may exhaust the energy of one which is much larger.

6. Only under cover of darkness, or by a successful counter-attack.

7. By attacking the enemy's advanced troops as they emerge, and pushing them back on their main body, which will thus have great difficulty in deploying.

8. That when an enemy has liberty to manœuvre, the passive occupation of a position, however strong, can rarely be justified, and always involves the risk of crushing defeat.

9. Rarely, and then only when delay is imperative to enable the main body it is covering to extricate itself or to get away.

CHAPTER VIII.

SIEGE OPERATIONS.

115.—General Description of Land Defences.

QUESTIONS.

1. How are land defences of sufficient strength to demand attack by siege methods divided?
2. How may the permanent works which make up a fortress be designed, and what is the most important feature in each case?
3. How are permanent works usually connected?
4. What is the generally accepted principle in the design of modern fortresses?

ANSWERS.

1. (i) Permanent defences which are constructed in peace and whose maintenance is part of the military policy of a nation.

- (ii) Provisional defences which are constructed, either during or in immediate anticipation of war, to supplement permanent defences or to extemporize fortresses at points of strategic importance.

Permanent defences comprise—

- (i) Girdles of mutually supporting works designed for the protection of some place of importance. These are known as fortresses.
- (ii) Coast defences, which consist of areas of land and sea provided at certain points or along selected lines with works of defence.
- (iii) Isolated self-contained forts or small groups of such forts designed to bar the passage of some defile or to command a railway or road junction. These are called barrier forts.

2. Either to develop chiefly the infantry power of the defence, the heavy artillery of the fortress being placed in the intervals between the works; or to develop chiefly the artillery power of the defence; or to develop both artillery and infantry fire. In the first case the invisibility of the works is an important feature, in the second and third cases invisibility is generally sacrificed to command.

3. By provisional defences.

4. That the assault will be repulsed by the fire of infantry, quick-firing artillery, and machine guns from permanent works protected by deep ditches, and that the rôle of heavy artillery will be to assist in keeping the enemy at a distance, to disorganize his preparations, and to subdue his artillery.

THE ATTACK OF FORTRESSES.

116.—General Principles.

QUESTIONS.

1. A fortress may be masked, invested, or actively attacked. What does each of the methods consist of?

2. How will the choice of methods of reducing a fortress be made by a commander?

3. What is one of the chief objects of land defences?

ANSWERS.

1. Masking a place consists in detaching a force to prevent its garrison from interfering with the operations or communications of a field army.

Investment consists in cutting the place off from communication with the outside so that no supplies can be brought into it.

Active attack consists in compelling a fortress to surrender as quickly as possible.

2. After a review of the strategic situation and a comparison of the enemy's circumstances with the means available, have been prepared for him by his general staff.

3. To detain as large a body of field troops as possible, for as long as possible, in order to gain time for the development of other resources.

117.—Masking a Fortress.

QUESTIONS.

1. How may a fortress be masked?

2. What does the method of keeping the garrison of a fortress under close observation demand?

3. When is it suitable to adopt the method of strongly entrenching the masking troops?

4. Why will it generally be possible to mask a fortress with a force which is smaller in strength than the garrison?

ANSWERS.

1. Either by keeping the garrison under such close observation that it cannot leave the fortress unobserved, and by meeting it with a mobile force when it has done so, or by strongly entrenching the masking troops in positions

which must be attacked by any force which seeks to come out.

2. A considerable proportion of mounted troops and good and numerous communications.

3. When the lines of operation open to the garrison are few, and the positions closing them are strong.

4. Because the whole of the garrison will rarely be able to leave the place, and the armament and equipment of part at least of its troops will usually be unsuited for field operations.

INVESTMENT AND ACTIVE ATTACK.

118.—The Reconnaissance.

QUESTIONS.

1. Whether a fortress is to be invested or attacked, in either case what is the first object?

2. Upon what troops does the work of driving in the enemy's advanced troops, and cutting the lines of supply on which the place ordinarily depends, and making a reconnaissance of the place, primarily fall?

3. When will balloon reconnaissances usually yield valuable results?

4. On what points should the preliminary reconnaissance provide information?

5. Why is it important to the besiegers that suitable positions for reserves should be selected as early in the investment of a fortress as possible?

6. What else should be done as soon as possible?

ANSWERS.

1. To drive in the enemy's advanced troops, to cut the lines of supply and communication on which the place ordinarily depends, to make as complete a reconnaissance of the place as possible, and to establish a preliminary investment.

2. Upon the cavalry, who should be accompanied by general staff officers, and by artillery and engineer officers, and be supported by other arms.

3. As soon as the enemy's advanced troops have been driven in.

4. (i) The best method of cutting off communication between the place and the outside.

(ii) The line upon which the sorties of the garrison will be met.

(iii) The position of the outposts.

(iv) The communications surrounding the fortress, and the means of improving, adding to, and protecting them.

5. Because the garrison is able to concentrate the greater part of its strength against a part of the investor's extended line.

6. Communications between the positions selected for the investor's reserves should be improved and protected, and the most efficient form of signalling should be arranged between all parts of the investing lines.

119.—The Investment.

QUESTIONS.

1. In order to invest and capture a coast defence fortress, what is essential?

2. When only should investment be resorted to as the sole means of capturing a fortress?

3. Why is it that some form of investment forms an important part of every regular siege?

4. How may an investment of a fortress be established most rapidly?

5. Why should every opportunity be taken during the advance towards the place to be invested to engage the enemy?

6. When the enemy's advanced troops have been driven in and the preliminary reconnaissance has enabled the general line of investment to be fixed, what is the usual procedure to be adopted by the investing troops?

7. Why should outposts be established as closely as possible round the fortress invested?

8. After the general line of investment has been taken up, what positions will be carefully selected and strengthened?

9. What is the duty of commanders of sections and the commander of the general reserve when all the positions of the investing troops have been occupied?

10. Whose duty is it to supervise the preparation of an efficient system of observation, and of signal communication between all the parts of the investing force?

11. When the extent of a fortress makes it impossible to invest closely more than a portion of the line, how is the remainder watched?

12. In the case of a fortress which owing to its extent cannot be closely invested all round, what should its garrison be prevented from doing if possible?

ANSWERS.

1. The command of the sea and the active co-operation of the Navy.

2. Only when the number or training of the troops available for the siege is insufficient to admit of an active attack, or when time is of no importance.

3. Because an active attack is rarely carried out on more than a small part of the circumference at any one period.

4. By a simultaneous converging movement. The investing force may also advance in echelon and gradually complete the investing line.

5. Because he cannot replace his losses in men and stores and will be hampered by wounded, while by so doing positions may be gained which would be more difficult to capture later on when the enemy has had time to strengthen them.

6. The investing line of troops will be divided into sections.

7. In order to cut it completely off from outside communication and to protect the operations in rear.

8. The positions on which sorties from the garrison will be met, and the positions of local reserves and of the general reserve will be fixed accordingly.

9. It is their duty to improve existing and prepare new communications, fix guide posts, and by other means enable their commands to move rapidly and safely in any required direction either by day or by night.

10. It is the duty of the general staff.

11. By cavalry outposts or by mobile columns at convenient centres.

12. From breaking out or from receiving substantial assistance: this is more important than that its absolute isolation should be attempted.

120.—Outposts in Siege Operations.

QUESTIONS.

1. On whom does the brunt of the work both of an investment and of a regular siege fall?

2. The general principles of protection are similar to those laid down for all outposts with some exceptions specially applicable to siege operations: state what these exceptions are?

3. What should the outposts of a section which is maintaining a close investment consist of?

4. Why is it that the high proportion of troops employed on outpost duty during siege operations has not the objections which it would have in field warfare?

5. How should the piquet line of resistance be strengthened?

6. Why must the investor's sentries be posted very close to each other?

7. What additional protection may be afforded to the outpost line of investment during the night?

8. How should outposts during a siege be protected from weather?

9. Should the siege be protracted, how must the periodical relief of units in the first line be carried out?

ANSWERS.

1. It will fall upon the outposts.
2. The outpost position should be established as close to the enemy's positions as is compatible with suitable defensive arrangements, and no opportunity of gaining ground and drawing the outposts closer should be lost. The outposts will be continuously exposed to artillery fire and to the rallies of the garrison, who will try to harass them in every way. They must, therefore, have greater power of resistance than outposts in field warfare in order to prevent the troops in rear from being disturbed by every skirmish.
3. They should be about one-quarter of the total infantry allotted to the section, together with a proportion of artillery, machine guns, and engineers.
4. Because it is possible to arrange more complete rest for the troops not on outpost duty than can be done when a force is marching from day to day.
5. In every way; and bomb proof cover should be provided for the piquets and supports.
6. Because it is important that the power of resistance of the piquets should be as great as possible, and as the general position of the outposts must inevitably be known to the defenders,

movements in the sentry line are less objectionable.

7. By means of search lights, spring guns, flares, electric alarms, etc.

8. If suitable buildings unexposed to artillery fire are not available, shelter must be constructed.

9. Arrangements must be made for the periodical relief of units in the first line by others from the local and general reserves.

121.—The Active Attack.

QUESTION.

1. How may a fortress be actively attacked?

ANSWER.

1. By bombardment, or by regular siege.

122.—The Direct Attack.

QUESTIONS.

1. What does the *direct attack* on a fortress imply?

2. When only should a direct attack be attempted against the main line of a fortress?

3. Against what other works than the main line of a fortress may a direct attack be used with success?

4. What is usually the best time for assault-

ing troops to move into a position for deployment?

5. How should the advance of the assaulting troops be covered and supported if necessary?

6. How should the assault on a fortress be delivered, and what troops should be at the head of each assaulting column?

ANSWERS.

1. An attack without recourse to siege operations.

2. Only when the strategical situation demands it and the prospects of success are good, *e.g.*, when the defenders are known to be demoralized either by the defeat of their main armies or by the disaffection of the civil population.

3. Against isolated forts or advanced works, particularly if the assailant is able to approach unseen and to deliver his attack in the form of a surprise.

4. Under cover of darkness, the assault to be delivered at dawn or under cover of fog or of bad weather.

5. Artillery, machine guns, and infantry should invariably be brought into entrenched positions, from which the advance of the assaulting columns can be covered.

6. Against several points simultaneously,

and an engineer party should be at the head of each assaulting column to open a way through the obstacles, and to provide means for the troops to cross them.

123.—The Bombardment.

QUESTIONS.

1. Under what conditions may a bombardment by itself be expected to succeed without recourse to an assault?
2. Before bombarding a place, what is usually done?

ANSWERS.

1. When it is possible to mount siege guns within range, the bombardment of a populous town may have great moral effect on the civil inhabitants who may bring pressure to bear on the governor to surrender.
2. It is usual to summon the governor or commandant to surrender.

124.—The Regular Siege.

QUESTIONS.

1. What should be the composition and strength of a force destined to undertake a regular siege?
2. How is the increase of the artillery effected?

3. How is the number of engineers increased ?

4. How is a besieging force divided ?

5. What does the *first phase* of a regular siege consist of ?

6. When the investment is completed, what may be said to be entered upon ?

7. Is the whole perimeter of a fortress subjected to a *vigorous attack* ?

8. Explain what is meant by the *front attack*, and the "zone of attack."

9. In deciding on the front of attack, what must be remembered by the commander ?

10. What considerations regulate the choice of the front of attack ?

11. When are the positions for the siege batteries finally selected, and the besieging troops pushed forward to secure the necessary ground ?

12. How does the infantry make progress from the positions of the siege artillery ?

13. When does the *third phase* of the attack on a fortress commence ?

14. When does a *fourth phase* occur ?

15. In what two main particulars do siege operations differ from field operations ?

16. When is the plan for the assault formulated ?

17. What is a very important factor in assault ?

18. What are the chief drawbacks to night attacks?

19. Why is an attack delivered an hour or two before dark to be recommended?

20. Why should the attack nearly always be delivered simultaneously along the whole front of attack?

21. How are the assaulting columns divided?

22. What are the duties of storming parties, and how are they composed?

23. What determines whether the engineer or storming party leads the way?

24. What officer should always accompany the head of the column?

25. Immediately the assault is launched, what is the action of the besieger's artillery?

26. What fire besides that of artillery will be directed on the works to be attacked?

27. How long will the reserves usually remain in the trenches before advancing?

28. What should assaulting columns invariably be composed of?

29. What points should the orders for the assault deal with specially?

30. Should it be decided to precede the assault by a bombardment, what should be mentioned in orders?

31. What precautions should be taken by the general staff to meet, as far as possible, the event of the assault failing?

32. Commanders of assaulting columns will, in turn, issue their orders for the assault. What points will these orders deal with specially?

ANSWERS.

1. It must be adapted to the special work required of it. The proportion of cavalry may be less than in a field army, while that of artillery and engineers must be largely increased.

2. By adding to the normal establishment of a field army a certain number of siege artillery units.

3. By the addition of units which have been specially trained in the work of sapping and mining.

4. (i) The investing troops, who are divided into sections, each with a local reserve.

(ii) The siege artillery.

(iii) The general reserve.

5. It consists in establishing the line of investment.

6. Siege operations proper may be said to be entered upon and the *second phase* to begin.

7. No; it would involve the employment of a force so large as to be prohibitive. Consequently only a portion of the whole line of defence is subjected to a vigorous attack pushed home by siege operations.

8. The portion vigorously attacked is called the "front attack," while the ground intervening between the front of attack and that portion of the investing line enveloping this front is called the "zone of attack."

9. That the goal of the attack is the assault, which will be delivered by the infantry, and that the infantry will be able to make progress only with the co-operation of the artillery and engineers.

10. (i) The general strategical situation should be considered, *e.g.*, possibilities of interruption, position of the besiegers field armies, and direction of his line of communication.

(ii) Its capture should promise decisive results.

(iii) The ground in the zone of attack should facilitate the co-operation of infantry, artillery, and engineers.

(iv) It should be chosen with reference to the delivery of the immense stores which a siege requires, and to the quartering of the besiegers.

11. When the front of attack has been chosen.

12. By a succession of forward movements, such movements being usually the result of a successful assault prepared by combined infantry

and artillery fire on some position of tactical importance within the zone of attack.

13. When owing to the fire of the defenders a further advance above ground is no longer possible, the *third phase* commences. Resort is made to sapping and mining until either the place capitulates or an assault on the main line of defence becomes practicable.

14. When there is more than one line of defence, a *fourth phase* similar to third will occur.

15. Firstly, every day after the investment has been completed, should alter the relative strength of besiegers and besieged owing to the latter not being able to replace either their personnel or their material; and secondly, the final combats resolve themselves into a series of independent frontal attacks on a well defined and limited frontage.

16. When the siege operations have made sufficient progress to make the success of an assault probable, and definite information has been obtained as to the enemy's defensive arrangements at the objective point, a plan for the assault will be formulated.

17. Surprise, for this reason a bombardment should rarely directly precede the delivery of the assault.

18. The power derived by the defenders

from search-lights, and the difficulty of recognising friend from foe, or of concerted action, are great drawbacks to night attacks.

19. Because the assault will be delivered during daylight, and the enemy will suffer all the disadvantages of hastily prepared night attacks if he attempts to recapture the work, whereas, should the assault prove a failure, the assaulting columns will more easily be able to withdraw under cover of darkness.

20. So as to prevent the enemy from reinforcing the main objectives, which will usually be the forts.

21. (i) Storming parties.

(ii) Reserves.

22. The storming parties are advanced parties on whom will fall the task of securing the ditch, making good the paths through the obstacles, and generally facilitating the advance of the remainder of the assaulting columns. The storming parties are composed of:—

(i) The stormers' infantry with fixed bayonets, accompanied by a carrying party (with ladders, planks, bags of hay, shavings or wool, with other suitable materials for crossing obstacles).

(ii) The engineer party (to remove obstacles, mines, etc.)

(iii) An artillery party (to destroy guns, etc.)

- (iv) A working party with tools and sand-bags, for forming lodgments and improving communications.

23. The nature of the work to be done.

24. An engineer officer.

25. The besieger's artillery fire will be directed against any supporting works which may bring a cross-fire on to the approaches to the objective, and against the ground in rear of the works to be assaulted over which the defender's supporting troops will have to pass, or where his reserves may be placed in readiness to reinforce the garrison.

26. Machine guns and rifle fire from covering troops detailed specially for the purpose will be directed on the works to be attacked.

27. Until the ditch has been captured, or until the storming party requires reinforcing.

28. Complete units and not of detachments of different units.

29. (i) The works to be assaulted.

(ii) The distribution of troops to assaulting columns, giving the names of commanders of columns and the route and objective of each column.

(iii) The hour or signal for assault.

(iv) Arrangement for the covering fire of siege artillery.

(v) The action to be taken if successful.

30. The hour at which the bombardment will begin.

31. They will be prepared with proposals for action and these will be communicated confidentially, if the commander considers it desirable, to the commanders of assaulting columns.

32. (i) The distribution of the column, giving the names of officers to lead storming parties and to command reserves, its objective and route.

(ii) The position of the reserve.

(iii) Arrangements for covering fire.

125.—Action on the Capture of a Work.

QUESTIONS.

• 1. What should the besiegers do the moment the work is captured?

2. What should every man in the assaulting columns carry besides arms and ammunition?

3. What should the troops be warned against doing?

4. Whose duty is it to search for mines during and immediately after the assault?

5. What should be done with all prisoners taken inside a work?

ANSWERS.

1. Entrench themselves and prepare to resist a counter-attack.

2. Several empty sand-bags, which can easily be filled with débris and earth of the fort without using tools.

3. Picking up anything, however harmless in appearance, inside a work, as it may be connected with a mine.

4. The engineers.

5. They should be kept there until the search for mines is completed.

THE DEFENCE.

126.—General Principles of Organization.

QUESTIONS.

1. Under whose command are permanent fortresses, and when is the organization of their defence fixed?

2. In the case of an improvised fortress or entrenched camp, who becomes the fortress commander and responsible for the organization of the defence?

3. State the general principles on which the defence of an improvised fortress or entrenched camp is arranged.

4. How far in advance of the main line of defence may the first advanced position be?

5. How should positions between the first advanced positions and the main line of defence be arranged?

6. Why is it not necessary as a rule to provide advanced positions all round an improvised fortress or entrenched camp?

7. How are the advanced positions held, and what is their character?

8. If the site of the fortress includes a town or any considerable civil population, what points should be considered in the defence scheme?

9. Who are responsible for the preparation of schemes of defence?

ANSWERS.

1. Under the command of fortress commanders, and the organization of their defence is fixed in time of peace.

2. The senior combatant officer in the place.

3. A main line of defence will be chosen. It will consist of a series of strong natural positions, the intervals being defended by infantry trenches and redoubts, the whole being strengthened as far as time and material permit.

If the nature of the ground, the extent of the place, and the size and armament of the garrison permit, a second line of defence similar in character, and advanced positions in front of the main line of defence will be constructed.

4. It should not be so far in advance of the main line of defence as to be beyond the support of the heavy guns, but sufficiently far,

should its capture be effected by the enemy, not to compromise the safety of the main line.

5. In accordance with the facilities offered by the ground, each position being so arranged as to cover a retirement from the position in front.

6. The natural features of the ground in the vicinity of the fortress, the position of the respective field armies of the attacker and defender, the direction of the main lines of communication, and other factors, will render an attack from certain directions more probable than from others, therefore, it will not be necessary to provide advanced positions all round.

7. By infantry and field artillery, and they are similar in character to defensive positions prepared in the field.

8. (i) The proclamation of martial law in the area in which the fortress is situated.

(ii) The question of the expulsion from the fortress of undesirable persons and of such civilians as are not likely to assist in any way during the siege.

(iii) The organization of the civilians remaining in the fortress into corps of artificers, labourers, firemen, hospital attendants, transport drivers, etc. The employment of civilian labour in the execution of defensive works.

- (iv) The collection, storage, and distribution of all food supplies (including cattle), and the organization and supervision of bakeries, abattoirs, water, fuel, and light supply, grazing grounds, and medical comforts. The control of the milk supply for hospitals and infants is also most important.
- (v) The control of the water supply. Should the source of the water supply be without the area of the fortress, special arrangements for the storage of water must be made.
- (vi) The registration and organization of all transport vehicles and animals.
- (vii) The safeguarding, storage, and distribution of all arms and ammunition.
- (viii) The registration and distribution of all tools and material likely to be of use during the siege.
- (ix) Arrangements for the proper protection of the town by police, for fire precautions, and sanitary supervision. It will be generally advisable to allow the civil power to carry out its usual procedure, strengthening it if necessary by special enactments and by military force. Ambulances and hospitals must be most carefully organized.

(x) The control of all means of communication and the censorship of the press.

9. The general staff, who will be given such assistance on technical points and on matters affecting the civilian population as the commander may consider necessary.

127.—Distribution of the Garrison.

QUESTIONS.

1. What principles govern the general distribution of the garrison of a fortress or entrenched camp?

2. What troops do commanders of sections command?

3. How are the troops allotted to sections divided?

4. In addition to the mobile troops at the disposal of the fortress commander for offensive operations, what may the general reserve conveniently contain?

ANSWERS.

1. They are similar to those which govern the distribution of a force which awaits attack.

2. All troops including the fortress artillery, within their sections.

3. (i) Mobile troops who are subdivided into:—
 - (a) Outposts.
 - (b) Local reserves.
- (ii) Garrisons of forts and intermediate works.
4. An artillery and engineer reserve for the reinforcement of the sections of the fortress.

128.—Conduct of the Defence.

QUESTIONS.

1. What is the general principle which governs the defence of fortresses?
2. Directly a place is threatened with an attack, what will the fortress commander despatch?
3. As soon as he has ascertained that the enemy is advancing, what will he do?
4. Why is it so necessary that the enemy should be delayed?
5. What does the extent to which the preliminary delaying action is possible depend chiefly on?
6. What will the defender's troops as they fall back destroy, and what will they take care not to injure?
7. How should buildings be dealt with by the defenders as they fall back?

8. What should be done with all wagons, forage, etc.?

9. When the defender has been forced back to his first advanced position, what will he endeavour to prevent?

10. The enemy having completed his line of investment, what will the defender do?

11. When reliable information regarding the front of attack selected by the besieger has been obtained, what will the defender do?

12. Should the defender make sorties?

13. Should the heavy guns of a fortress be able to support the troops holding the first advanced positions?

14. As soon as the enemy's intentions regarding the front of attack become clear, what should the fortress artillery attempt to prevent?

15. Why should every attempt be made by the defender to cope with the fire of the siege batteries in the first stages?

16. When the besieger has an adequate siege train, the fire from the siege batteries will ultimately assert its superiority, what will it then be better for the defender to do?

17. *The most effectual means of defence is counter-attack.* What does counter-attack impose on the part of the besieger, and what does it impart to the defender's troops?

18. How may counter-attacks be divided?

19. How are *sorties in force* delivered, and what do they resemble?

20. With what objects are *small sorties* made, and how should they be prepared and delivered?

21. How should attacks on sap-heads and approaches be made?

22. Why is it generally advisable to describe precisely the objective of a sortie on a sap-head or approach?

ANSWERS.

1. That the offensive is the soul of defence.

2. Detachments in the direction of the enemy to obtain information and to gain contact with his troops.

3. He will send out all the troops he can spare to delay and harass the enemy and to make him deploy on as wide a front as possible.

4. In order to give time to the defender to complete his preparations.

5. On the size of the fortress and of its garrison, but under any circumstances the enemy must be kept under observation from the earliest possible moment.

6. They will destroy all bridges, railways, telegraphs, etc., that might be of assistance to the enemy, taking care not to injure those in

the direction of the probable advance of any relieving force.

7. They should be destroyed if they are likely to be of use to the besieger.

8. They should be removed to the fortress.

9. The completion of the line of investment.

10. Use all means to ascertain the front of attack selected by the besiegers.

11. He will re-organize his troops, reducing to a minimum the garrisons of sections outside the zone of attack, and will prepare to dispute every inch of the ground between the besieger's batteries and the fortress.

12. Frequent sorties should be made on the besieger's works and dépôts.

13. A portion of them at any rate.

14. The formation of the besieger's dépôts and magazines, and should then attempt to annihilate his batteries in detail as they are discovered.

15. In order to hinder them from obtaining accurately the ranges of the more important works. Any guns and howitzers that can be spared should be brought round from those portions of the fortress not threatened.

16. To withdraw some of his guns into the retrenchment or line of inner defences.

17. Imposes caution on the part of the besieger, and imparts an inspiring influence to

the defender's troops, besides rendering them more fit for field operations in the event of the siege being raised.

18. (i) Sorties in force.

(ii) Small sorties.

19. With the whole of the available field troops of the garrison, and they do not differ from a decisive attack upon an enemy's position.

20. With the object of seizing a position important to the defence of the fortress, of delaying the enemy's works, or of destroying his material or stores. They must be prepared with secrecy and delivered suddenly, and will usually be made at night.

21. By infantry supported by machine guns and by field and light fortress artillery. The troops will carry hand-grenades, and be accompanied by engineers with explosives.

22. Because even if it be successful and the object gained, the sortie should not be allowed to advance further than some prescribed limit.

CHAPTER IX.

NIGHT OPERATIONS.

129.—General Principles.

QUESTIONS.

1. When may night operations be undertaken?
2. How may night operations be classified?
3. Why is secrecy of preparation so important in night operations?
4. Next to the special training of the troops to work in darkness, on what is the success of night operations chiefly dependent?
5. May night marches and night advances be undertaken successfully by large bodies of troops?
6. Should night attacks, that is to say, attacks delivered in the dark, be attempted by large bodies of troops?
7. In all night operations, what is of the first importance in order to secure success?

8. What is the duty of every commander who furnishes connecting files ?

ANSWERS.

1. To out-manceuvre an enemy, to pass over an area of ground which it has been found difficult or impossible to traverse in daylight, to continue or complete an attack begun before dark, and to effect a tactical surprise.

2. As *night marches, night advances, and night attacks.*

3. Because surprise in some form is usually the object of night operations.

4. Upon the thoroughness and care with which the preliminary arrangements are made, and upon the completeness of the preliminary reconnaissance.

5. Yes, provided that ample time is allowed for the necessary preparations.

6. They should rarely be attempted by a force larger than an infantry brigade against a single objective unless the conditions are singularly favourable.

7. The maintenance of connection between the various units.

8. To keep a reserve of these connecting files in his hands so as to supplement those already sent out whenever necessary.

130.—The Reconnaissance should be marked in
 er; its appearance by

QUESTIONS and a description
 operation or

1. What is an essential secret, concerning night
 advance or to a night attack, considers

2. When may a night march be successfully
 carried out without a thorough reconnaissance
 having been made?

3. In a reconnaissance for a night march,
 should the route be examined both by day and
 by night?

4. What points should be carefully noted in
 the preliminary reconnaissance for a night
 march?

5. What should be mentioned in the opera-
 tion orders to assist the commanders of columns
 to keep the right direction?

6. It is often difficult for a column to know
 when it has reached its destination in the dark,
 how is this danger best guarded against?

7. In the case of a night advance or of a
 night attack, what information should be ob-
 tained before starting?

8. If all the required information cannot be
 obtained without fighting, on what troops will
 the necessary fighting usually fall?

9. What should subordinate commanders
 and regimental officers who are immediately

131.—Night marching of the troops carefully

1. Quantity to the enemy, what advantage the exact taken by all officers of par in the weapons?

1. Whether sent usually be sent out in the direction of proposed advance from the units to take part in night operation, and with what object?

ANSWERS.

1. A thorough reconnaissance, and this should rarely be dispensed with.

2. Under exceptionally favourable conditions, *e.g.*, when good roads, reliable guides, and good maps are available, but every commander, who orders a night operation, which is not preceded by a complete reconnaissance, increases the risk of failure and incurs a heavy responsibility.

3. Yes.

4. All points where checks are likely to occur, the position of branch roads or of places where the column might go astray, and the best method of marking them should be noted.

5. The general compass direction of the march.

6. Its destination should be some easily

recognizable landmark or should be marked in some prearranged manner ; its appearance by night should be noted, and a description of it should be inserted in the operation orders, or, if it is desired to keep it secret, communicated confidentially to the commanders concerned.

7. (i) The distribution of the enemy's forces as far as possible and the position of his outposts.
- (ii) The nature and position of his entrenchments.
- (iii) Whether there are any obstacles either natural or artificial which might hinder the advance.
- (iv) The position of any land marks which might assist the advance.

8. On the advanced troops and take place in daylight.

9. The ground over which they will have to move, subject to such limitations as the commander of the force may impose.

10. They should endeavour to gain knowledge of ground over which they may at any time be required to lead their men by night.

11. Selected scouts to study the ground and to note the position of the enemy's outposts and of any defences or obstacles he may have erected. These scouts should assist in guiding their units in the subsequent advance.

131.—Night Marches.

QUESTIONS.

1. With the exception of one undertaken because of the weather conditions, a night march is either strategical or tactical. State the principal advantages to be gained by a night march undertaken—first, with a strategical object; second, with a tactical.

2. How is a tactical night march usually covered, and what will it often culminate in?

3. In the case of bodies of troops larger than an infantry brigade, when will an attack usually be delivered?

4. When a night march is undertaken with the object of making a night attack, how large a force should be employed?

5. Why should night attacks rarely be delivered after a long night march?

6. When a night march is made for the purpose of an attack, what is its immediate objective?

ANSWERS.

1. By a strategical night march an enemy may be outflanked or anticipated at an important strategical point, an army may be placed in such a position that the enemy is forced to accept battle under conditions unfavourable to

himself, or a commander may extricate himself from an embarrassing situation.

By a tactical night march superior strength may be secretly concentrated at a decisive position, troops may be transferred unknown to the enemy from one point of a battlefield to another, or an inferior force engaged in delaying a superior force may avoid a decisive engagement.

2. It will usually be made under cover of outposts or advanced troops, either pushed forward at dusk or already in contact with the enemy, and will often culminate in an attack.

3. At dawn or in daylight.

4. Only small bodies of troops should be used.

5. Because of the difficulty of obtaining definite information as to the enemy's dispositions, and making the essential preparations from a distance.

6. The position of assembly, where the ordinary march formation is to be abandoned.

132.—General Rules for Night Marches.

QUESTION.

1. What are the general rules for night marches?

ANSWER.

1. (i) Local guides should be procured as a rule.
- (ii) As secrecy is usually of the greatest importance, the outposts should not be withdrawn till the last possible moment. They should be left in position till daylight, and should follow the column when convenient. Bivouac fires should be left burning, and arrangements should be made for keeping them alight. Orders should be issued as late as possible, and all preparations be made quietly. All horses and vehicles should be kept well in rear. Precautions should be taken to prevent accoutrements and wheels of vehicles rattling. Horses likely to neigh should be left with the second line transport.
- (iii) The march should generally be protected by small advanced and rear guards, which, except in the case of columns composed entirely of mounted troops, will consist of infantry. In enclosed country, the flanks are best protected by piquets posted by the advanced guard and withdrawn by the rear guard; in open country, either by

piquets or by flanking patrols, but the latter, unless accustomed to night work, are liable to lose direction.

- (iv) When a column is formed of all arms, mounted troops, artillery, and machine guns will usually march at the least exposed portion of the column. If it is anticipated that obstacles may be met with, engineers with the necessary tools and materials for clearing the obstacles should accompany the advanced guard.
- (v) All ranks should be previously informed what they are to do in case of an alarm or attack.
- (vi) Every commander should have a fixed place in the column, where he should remain. An orderly officer for the commander will be detailed from each unit to convey instructions.
- (vii) The method of marking the starting point in the dark will usually be by signalling lamps or by fires.
- (viii) The regulation distances between units should be reduced or omitted, and the column must be kept closed up. An officer should invariably march in rear of each unit. Connection must be maintained throughout the column.

The distance of the advanced, flank, and rear guards from the column must be small, close connection being maintained by means of connecting files.

- (ix) The march formations will be normal, unless tactical exigencies make a change necessary.
- (x) To prevent the troops in rear from going astray, the advanced guard, under instructions from the commander of the column, should block all branch roads that are not to be used by posting men at them, or by placing branches of trees or lines of stones across them. These men will be withdrawn by the rear guard. After crossing an obstacle or defile where opening out is likely to occur, the column should advance about its own length and then be halted until the rear is reported to be closed up. Staff officers should be detailed by the commanders of the column to superintend this, wherever necessary.
- (xi) Rifles should not be loaded, but magazines should be charged. No firing is to take place without orders. Absolute silence must be maintained, and no smoking or lights are to be

allowed, except with the permission of the commander of the force.

- (xii) The hours and periods of halts should be arranged before starting. Units must not halt till they have regained any distance which they may have lost.

During halts men may lie down, but must not leave the ranks, mounted men retaining hold of their horses.

- (xiii) The pace must be uniform. It is not safe to calculate on a force of the size of a division marching on a road faster than two miles an hour. The darker it is, the slower will be the pace.

133.—Guiding Columns by Night in Open Country.

QUESTIONS.

1. How should the route of a column which is marching at night be fixed in open country, and what should be noted ?

2. When practicable, what distances should be measured ?

3. By what means, other than by compass bearings, can the general direction be effectively kept at night ?

4. Who should invariably be detailed to check the distance marched?
5. When troops are in column, how may distances from front to rear be best preserved?
6. How are intervals kept?

ANSWERS.

1. By compass bearings; the points where any change of direction is necessary should be noted.
2. Distances between easily recognizable points should be measured.
3. By means of stars. An officer should acquire sufficient knowledge of the stars to enable him to ascertain his bearings by them.
4. An officer, other than the one guiding the column.
5. By means of knotted ropes.
6. By the extension of men.

134.—Night Advances.

QUESTIONS.

1. What is the purpose of a night advance?
2. Night advances are usually of two kinds. State what they are.
3. In either case, what troops will usually be in contact with the enemy?

4. When a night advance is made, how are the troops usually formed ?

5. What is the advance generally followed by, and with what object ?

6. When may a night advance be made during a battle ?

7. When the objective of a night advance during a battle has been gained, what should be done ?

8. When may a series of advances on successive nights be advisable ?

9. When the ground in the vicinity of the objective of a night advance is likely to be difficult to entrench, what should the troops carry ?

ANSWERS.

1. To gain ground from which further progress will be made in daylight, and not to deliver a decisive assault during darkness.

2. They may be used as preliminary to opening a battle, or to continue an engagement already begun with improved prospects of success.

3. The protective cavalry or outposts.

4. A night advance is a forward movement by a force which is deployed.

5. By an attack at or soon after dawn, and is undertaken either with the object of sur-

prising the enemy, or of gaining ground which could only be covered by daylight under conditions unfavourable to the attacker.

6. When it has not been found possible to gain a sufficient superiority of fire during daylight to justify an assault, for the purpose of renewing the fight under more favourable conditions at dawn.

7. It should be entrenched so that it may afford a point of support to further progress in daylight.

8. When an enemy has occupied a position which leaves the assailant no scope for manœuvre and has been strengthened to such an extent as to make the success of an attack in daylight doubtful.

9. Empty sand-bags, which can be quickly filled and placed in position in darkness.

135.—Night Attacks.

QUESTIONS.

1. With what objects may assaults be delivered during darkness?

2. When may several distinct objectives be attacked simultaneously with advantage during darkness?

3. Why is it advisable to time the delivery of the assault so that the attackers may have

two or three hours of darkness in which to prepare and organize their defence?

4. When one or more night attacks are delivered by part of a force, what should the remainder always be in readiness to do?

5. Under what conditions may night attacks often be forced on an assailant?

6. When may a night attack be justified as the only possible solution of a difficult situation?

7. Should night attacks be avoided if success is not improbable without having resort to them?

ANSWERS.

1. To gain a point of support for further operations in daylight, to drive in an enemy's advanced troops, to secure an outpost position as a preliminary to an attack at dawn, or to surprise an ill trained, ill disciplined or semi-civilized enemy.

2. In the case of a force deployed on an extended front.

3. Because it may be anticipated that the enemy will attempt to regain what he has lost, usually by a counter-attack at dawn.

4. To take advantage at daylight of any success obtained during darkness.

5. By the fact that the conditions of the fire fight have been or are certain to be adverse.

6. When circumstances prevent the successful co-operation of the attacker's artillery, or it may be important to neutralize the effect of the defender's artillery.

7. When the conditions of the fire fight are likely to be favourable, it will probably be better to accept the inevitable casualties that must result from a struggle for fire supremacy in preference to the undoubted hazards of a night attack.

PREPARATIONS FOR NIGHT ADVANCES AND NIGHT ATTACKS.

136.—Preliminary Measures.

QUESTIONS.

1. When a movement in march formation precedes a night advance or a night attack, what must be selected before hand?

2. What does the distance of the position of assembly from the objective depend on?

3. Besides the *position of assembly*, what other position is it also necessary to decide beforehand?

4. Where must the *position of deployment* be situated?

5. When may the position of deployment coincide with the position of assembly?

6. Should both the position of assembly and the position of deployment be easy to recognize at night?

7. What should be carefully taken and noted from the position of assembly to that of deployment?

8. If two or more points are to be attacked simultaneously, what special precautions must be taken in selecting the positions of assembly and the positions of deployment?

9. What measures should be taken to enable the troops to recognize each other?

10. What means may be usefully employed as the signal for assault?

ANSWERS.

1. A position of assembly where the normal march formation is to be abandoned.

2. The nature of the country, the enemy's vigilance, the possibilities of discovery, and the size and composition of the attacking force.

3. The position of deployment.

4. It must be so situated that the force, while there, is secure from interruption.

5. In very level and open country, or when the opposing forces are in close touch.

6. Yes.

7. Compass bearings. The distance between these points must also be ascertained as accurately as circumstances admit.

8. Care must be taken that the various forces advancing from them will not converge towards one another to such an extent that there is a danger of their meeting or crossing one another.

9. A distinguishing mark should be ordered for the troops, and a watchword decided on. The commander of the force and his staff should wear easily distinguishable badges.

10. Rockets, flares, or bonfires.

137.—Composition and Formation of Columns.

QUESTIONS.

1. What, as a general rule, should be the composition of troops employed for night advances or night attacks?

2. When may guns occasionally be able to assist in night operations?

3. How should artillery be handled if it is intended to support troops which have advanced under cover of darkness with the object of making a daylight attack?

4. What usually takes place at the position of assembly?

5. How are troops best protected when advancing at night across open country in a preparatory formation?

6. How fast is it safe to reckon that troops moving in a preparatory formation can move at night?

7. What formation will be adopted at the position of deployment?

8. Why does not a force intended to make a night or a daylight attack march from the first in attack formation?

9. What do the formations adopted at the position of deployment depend upon?

10. Describe what is laid down for a general guide, as a suitable formation for a force advancing to attack under cover of darkness.

11. What are the respective rôles of the second and third lines?

12. With which line should any tools required be carried?

13. When an advance or an attack is made simultaneously against several objectives, what should be detailed in addition to the three lines?

ANSWERS.

1. Infantry, with the addition of engineers to assist in the maintenance of communication, in removing obstacles, and in preparing the objective for defence.

2. If the operations are protracted, the positions of artillery have been previously taken up, and the ranges of the objectives are known,

guns may occasionally be able to assist an attack upon a strongly entrenched position.

3. Artillery may often be moved with advantage into positions, which can be entrenched during darkness, whence it can support an attack in daylight.

4. The normal formation will usually be changed for a preparatory formation which will bring the force more directly under its commander's control, and from which deployment for attack will be easy.

5. Lines of scouts, at about eighty yards in advance and on the flanks of the column, usually afford the best protection.

6. Not faster than one mile an hour.

7. The formation in which the remainder of the advance is to be made.

8. It is an advantage if the force can move from the first in this formation, but when troops advance for long in fighting formations by night, control is more difficult and the fatigue caused to the troops is increased.

9. They vary with the ground and with the special circumstances of each case.

10. The force may be divided into three lines. The first line, which should be preceded from fifty to eighty yards by a line of scouts, may move in line, in line of half company columns at deploying interval, or in line of

company columns at deploying interval; in the last two cases lateral connection should be maintained by connecting files at about ten paces interval. The second line may move in similar formation to the first at about 100 to 150 yards distance. The third line should follow at about 200 yards distance in quarter column, lines of quarter columns, or any other convenient close formation. The second and third lines may conveniently move on one or both flanks of the first line, so as to avoid fire suddenly directed at the latter.

11. The rôle of the second line is to act as an immediate support to the first, and of the third to serve as a reserve.

12. Any tools or special appliances required to place the objective in a state of defence should accompany the third line.

13. A general reserve to the whole should be detailed.

138.—The Advance.

QUESTIONS.

1. Before the troops move off from the position of assembly, what must always be done?

2. What special instructions should be repeated two or three times to the men by the company officers before they move off from the position of assembly?

3. Why is the maintenance of lateral communication between different columns so important ?

4. How is communication between columns and with the general reserve best secured ?

5. Why should the force be occasionally halted for a short time ?

6. If hostile patrols, scouts, or advanced parties are encountered, how must they be dealt with ?

7. If, after the position of deployment has been left, the enemy opens fire, what should all ranks understand their duty to be ?

8. So long as it is intended to advance, should any movement to the rear be permitted ?

9. Should night attacks always be prepared to receive fire before closing with the enemy ?

10. If an assault at dawn succeeds, what should be the action of the mounted troops, and if it fails, how should they act ?

ANSWERS.

1. The orders should be clearly explained to all ranks, so that everyone may know :—

- (i) The object in view and the direction of the objective.
- (ii) The formation to be adopted at the position of deployment.
- (iii) The part he has to play.

- (iv) His action in case the enemy is not surprised.
- 2. (i) Rifles should not be loaded, magazines should be charged and cut-offs closed, and no one is to fire without a distinct order.
- (ii) Until daylight, bayonets only are to be used.
- (iii) Absolute silence is to be maintained until the moment of assault.
- (iv) No smoking is to be allowed, nor are matches to be struck.
- (v) If obstacles are encountered which cannot be readily traversed or removed, the troops will lie down till a passage has been cleared.
- 3. So that the assaults may be delivered simultaneously.
- 4. By telephone.
- 5. To enable the formation to be corrected.
- 6. They must be rushed in silence with the bayonet without hesitation.
- 7. To press forward at once, cost what it may.
- 8. No, not even to correct mistakes which may have been made.
- 9. When two forces are in close contact it will rarely be possible to completely surprise a civilised and disciplined enemy. Night attacks

must, therefore, be prepared to receive fire before closing with the enemy.

10. If it succeeds, the mounted troops should push forward with all speed and endeavour to get round the flank of the retreating foe. If it fails, they will do their utmost to protect the retiring infantry while the artillery takes up a rallying position.

139.—Orders for Night Attacks and for Night Advances.

QUESTIONS.

1. In framing orders for night operations, what special points may it be necessary to deal with in addition to those appertaining to ordinary operation orders?

2. To whom will orders usually be communicated beforehand?

3. Until the troops reach the position of assembly, what should be made known to them?

4. Is it ever advisable that misleading orders should be given out?

ANSWERS.

1. (i) Time of assembly at, and departure from, the position of assembly. Description of the position of assembly.
- (ii) Order of march, and formations on leaving the position of assembly.

Distances and intervals. Maintenance of communication.

- (iii) Compass bearing of the route.
- (iv) Time and duration of halts.
- (v) If possible, the position of deployment should be described, and its distance from the position of assembly and from the point selected for attack notified.
- (vi) Formation to be adopted at the position of deployment.
- (vii) Special instructions for the assault, and the signal for it.
- (viii) Short description of the ground to be crossed.
- (ix) Description of the position to be assaulted.
- (x) Conduct of troops during the advance.
- (xi) Action in case the enemy opens fire.
- (xii) Action after the position is captured to resist counter-attack.
- (xiii) Extent to which the captured position is to be fortified and the detail of troops who are to perform this duty.
- (xiv) Action of reserves or neighbouring troops against positions likely to enfilade the captured position.
- (xv) Distinctive marks and watchword.
- (xvi) Place of the commander at the position

of assembly, during the march thence, and at the position of deployment.

2. To those officers only from whom action is required, so that timely arrangements may be made.

3. No more than is absolutely necessary.

4. It may be sometimes in order to deceive spies.

140.—The Defence.

QUESTIONS.

1. Why should a decisive counter-attack rarely be attempted outside the limits of the defender's position at night?

2. When the enemy has succeeded in establishing himself in the position at night, what should the defenders do?

3. When may artillery assist the defence effectively, and what will be used to aid the gunners?

4. How long should the search-lights of the defenders be kept concealed?

5. Under whose orders should the search-lights intended especially to assist the artillery be placed, and where should they be posted?

6. Where should all search-lights usually be stationed, and how should they be protected?

7. Describe how the area in front of the defender's position should be illuminated when the search-lights are brought into play.

ANSWERS.

1. Because its direction must depend on the enemy's movements and it cannot, therefore, be prearranged in daylight.

2. The enemy should be attacked as soon, and in as great strength, as possible.

3. When the front to be defended is narrow, and there is limited ground over which the enemy must pass if he wishes to attack; under these circumstances field search-lights will be of value.

4. They should not usually be exposed until the attacking force is reported by the outposts or patrols to be advancing to the attack, otherwise they betray the position and serve to guide the attacker.

5. Under the orders of the artillery commander, and should be at least 400 yards on the flank of the artillery whose target they are to illuminate.

6. They should be well entrenched, usually low down on the forward slope of the position.

7. By beams directed from the flanks across the front of the position, or when the hilly and broken nature of the ground makes this impossible, by a large number of small lights with dispersed beams at close interval.

CHAPTER X.

WARFARE IN UNCIVILISED COUNTRIES.

CONVOYS.

141.—General Principles.

QUESTIONS.

1. What are the chief requisites for overcoming the difficulties inherent in savage warfare?
2. In the case of people with some settled form of government, what will generally be the chief objective?
3. In dealing with independent fanatical tribes, what is often the best objective in order to bring all organized resistance to an end?
4. If no objective such as a capital or sacred town be available, how may the enemy frequently be brought to oppose the advance?
5. Should the enemy refuse to make any organized resistance, what are the usual methods adopted to obtain his submission?

6. What is always the safest method of conducting operations against an uncivilized enemy?

7. Why is it that a force acting in an uncivilized country may have to be broken up into small and compact columns moving in several lines, or on the same road at a day's interval?

8. Why is it so necessary to deliver a crushing blow if the result of an action is to be successful?

9. In order to facilitate pursuit in difficult countries, what precaution should be taken by the commander of a force acting against an uncivilized enemy?

10. Why should bush, or very broken country, be avoided, especially as a halting place or bivouac?

ANSWERS.

1. Self-reliance, vigilance, and judgment.
2. Their capital.
3. A sacred town or shrine.
4. By a movement against his wells or sources of supply.
5. The occupation of his country, the seizure of his flocks and supplies, and the destruction of his villages and crops.
6. A vigorous offensive, strategical as well as tactical.
7. Because of the difficulty of supply. Pack

animals or porters will often be employed as the only means of transport and be unable to move on a wide front. Supply and baggage columns will therefore be both long and vulnerable—hence it is often necessary to break the force up into small and compact columns.

8. Because of the freedom of an uncivilized enemy from the complicated organization of regular armies, his individual independence, and his ability to disperse.

9. A portion of the force at least should be thoroughly mobile and independent; the question of supply and transport being carefully worked out beforehand.

10. Because a badly armed enemy in open country has but small chance against regular troops, but in bush, or very broken country, their superior activity, recklessness, and knowledge of the ground makes them formidable foes.

MOUNTAIN WARFARE.

142.—General Principles.

QUESTIONS.

1. How should a force advancing or retiring in a mountainous country always be protected?

2. As a general rule, should salients or re-entrants be used for advances and retirements in hill fighting?

3. When only should ravines be followed?
4. What preparations should always be made when a force approaches the summit of a hill, and as soon as the crest is occupied, what should be done at once?
5. What is considered to be the most difficult operation in hill warfare, and how should it be carried out?

ANSWERS.

1. By bodies of men in rear or on the flanks, covering by their fire the advance or retirement of the troops nearest the enemy.
2. Salients.
3. When their exact course is known and the heights on either side are held.
4. Precautions to meet a counter-attack, and as soon as the crest is occupied it should at once be strengthened.
5. The withdrawal of troops from a hill top, and should be carried out in accordance with the principles laid down for the conduct of a rear-guard.

143.—Camps and Bivouacs.

QUESTIONS.

1. What should the shape of a camp be, and how should tents and bivouac shelters be pitched?

2. In the case of a salient, what should be avoided?
3. How should transport corps camp?
4. Where should cooking places and latrines be placed; first for use by day, second, for use by night?
5. When a force leaves a camping ground which is to be occupied by another force, what should be sent to the incoming force?
6. In fixing a camping ground, what is it important to consider with regard to the next day's movement?

ANSWERS.

1. As nearly as possible rectangular. Tents and bivouac shelters should be pitched parallel to the perimeter and from 5 to 10 yards from it, in order to give men room to fall in in case of alarm.
2. The flanks of units should not meet at salients, which should each be held by one unit.
3. By corps, in places convenient to the units to which they are attached.
4. For use by day outside the perimeter of the camp; those for use by night inside and within the camping grounds of the units.
5. All available information regarding the camp.

6. The exits for the next day's movement, and, if necessary, to have those improved.

144.—The Advanced Guard.

QUESTIONS.

1. On whom do the duties of protection on the march chiefly fall?
2. Is it advisable to have any artillery with the advanced guard?
3. How does the advanced guard usually protect the flanks of the main body?
4. What is the strength of flanking piquets?
5. How far from the main column may piquets be?
6. As soon as the whole column has passed, what becomes of the flanking piquets?
7. What will the strength of the advanced guard largely depend on?
8. In deciding on the distance between the advanced guard and the main body, what should the commander remember?

ANSWERS.

1. On the infantry.
2. It is generally advisable to have a small force of artillery with the advanced guard.
3. By piqueting the heights, which command the line of march of the main body, with flank-

ing parties detached to occupy and, if necessary, entrench themselves in favourable positions.

4. They vary in strength from 4 to 25 rifles.

5. They should always be in sight of the supports, or of the main column.

6. They are withdrawn under the orders of the commander of the rear guard.

7. The numbers and nature of the heights which it may have to piquet.

8. That the enemy is not as a rule provided with artillery and that the process of piqueting heights is slow.

145.—Flank Guards.

QUESTIONS.

1. Is it usual to detail a special flank guard?

2. How are ravines opening on to the line of advance dealt with?

ANSWERS.

1. The flanks of a column are usually sufficiently guarded by piquets from the advanced guard, but it may be necessary to detail a special flank guard to occupy and entrench itself on a threatened flank.

2. They should be watched, especially at night.

146.—Rear Guards.**QUESTIONS.**

1. Who is responsible for relieving the outposts and also for withdrawing all flanking parties by whomsoever posted?

2. What guns should usually form part of a rear guard?

3. What does the withdrawal of the artillery usually encourage the enemy to do, and on such occasions how should the retreat of the artillery be covered?

4. How must all retirements be conducted?

5. How should the main body regulate its pace?

6. If the rear guard commander considers it impossible to reach camp before nightfall, what will it generally be advisable for him to do?

7. Under these circumstances, at what time should the rear guard halt?

8. In all movements involving subsequent retirements, such as reconnaissances, foraging, etc., what precautions should always be taken?

9. If the force has been equipped with mixed transport, *e.g.*, pack mules and camels, what may the superior mobility of the former render it advisable to detail.

ANSWERS.

1. The rear guard commander.

2. Mountain artillery, and machine guns may be usefully employed.

3. It is usually an encouragement to the enemy to press on, and on such occasions machine guns will find scope for action.

4. By bodies of troops in succession. The rearmost troops must retire through the successive supporting lines, the latter covering the withdrawal and holding on to their position until their own retirement can be similarly covered by other troops in position in rear.

5. It should keep touch with, and regulate its pace by, the rear guard.

6. To halt and bivouac for the night in the most favourable position for defence, informing the commander of his action.

7. In time to make the necessary dispositions for defence before dark.

8. No defile through which the troops will have to pass in returning, and no commanding point from which an enemy could harass the retirement, should be left unguarded.

9. A special rear guard for the pack mules and a small advanced guard for the camels.

147.—Protection when at Rest.

QUESTIONS.

1. Why is it that no commander of the outposts need be appointed in uncivilised warfare?

2. What is the usual system adopted for protection both by day and by night ?

3. What does the outer line of defence consist of, and when can the number of piquets be much reduced ?

4. What strength should the piquets be, and to whom should their position be known ?

5. In case of attack, what must the piquets do ?

6. What does the inner line of defence consist of, and how is it manned ?

7. Where should all troops and followers be assembled daily ?

8. When may strong patrols be usefully employed ?

9. When the force of combatants is insufficient to provide for an all-round defence (as in the case of convoys, standing camps, or posts on the line of communication), how are the camps best protected ?

10. Is firing by night to be discouraged ?

11. What means may be usefully employed for discovering the enemy ?

ANSWERS.

1. Because reconnaissance or movement between the piquets by night is seldom feasible, and only vigilance and resistance are demanded of the outposts.

2. That of establishing an outer and inner line of defence.

3. Of strong self-contained piquets, placed so as to deny the enemy all ground from which he could fire into the camp. The number of piquets may be much reduced if ground can be found for the camp the formation of which lends itself to the defilade of the interior, such as a hollow between undulations the crests of which are suitable for the perimeter, or a commanding bluff, along which the perimeter can run.

4. Of sufficient strength to maintain themselves if attacked. Their position should be known to all units in camp and to each other, and they should be in signalling communication.

5. Hold on to their positions, and on no account fall back on the camp.

6. A defensive perimeter, which must be clearly defined round the whole encampment by some obstacle, or breast work, and which is manned by all troops not told off for other duties.

7. On their alarm posts.

8. By day, to search the ground in the vicinity, but after dark no one should on any pretext go outside the perimeter unless specially ordered to do so, in which case the sentries should be previously warned.

9. The perimeter must be defended by flank-

ing fire, and must itself be made as formidable an obstacle as circumstances permit.

10. Yes, unless the enemy shows signs of a determined attack.

11. Star shell, rockets, etc. Fires may also be lighted outside the camp for this purpose.

BUSH FIGHTING.

148.—Characteristics of Bush Tribes.

QUESTIONS.

1. How may the fighting value of bush races be roughly estimated?

2. Give examples showing how the characteristics of the enemy may be of great value in arranging a plan of action.

3. What are the characteristics of the Burmese and the races of our Indian North-Eastern Frontier?

4. How do the Somalis and Soudanese usually fight?

5. How do some West African tribes fight?

ANSWERS.

1. By the methods they employ for protecting their villages, crops and sacred places.

2. The Asiatic depends on his villages for protection, and accordingly makes them his chief point of defence and concentration. The

African frequently leaves his villages unprotected but guards his crops, and still oftener selects the densest forest or bush near a main road or path as his fighting ground. In the thick bush of Somaliland and in parts of the Soudan the water supply alone indicates the possible fighting ground of the enemy.

3. They build stout stockades and trust to these defences mainly; their attacks are more or less spasmodic and ill executed.

4. In thick bush, and their onslaught must be met with well disciplined troops.

5. They build very strong stockades, needing powerful mountain guns to destroy them. They seldom attack except from ambush, but are most tenacious in holding their stockades.

149.—Composition of Columns.

QUESTIONS.

1. Why is it a sound principle when operating in bush country not to employ large columns?

2. Why should every effort be made to move on as broad a front as possible?

3. What will be the best guide to the strength and composition of columns?

4. What arms may be employed in bush fighting?

ANSWERS.

1. Because a force operating in bush country may often have to move in single file.

2. The more compact the force is the better, as a lengthy baggage column is a source of danger and causes fatigue and delay.

3. A knowledge of the enemy's tactics.

4. A punitive column generally consists of infantry with a proportion of mountain guns. In countries where cavalry or mounted infantry can act, the presence of these is much dreaded by savages. Against an enemy who fights outside stockades, machine guns are very efficacious; and in any case against all uncivilized people a sudden burst of fire from these is often most paralysing.

150.—Marches.

QUESTIONS.

1. What are the usual times to march in bush?

2. In all bush countries, what time should camp be reached?

3. What is about the maximum distance the advanced guard may be pushed to the front?

4. If the nature of the bush admits, and the enemy is likely to adopt offensive tactics, what is the best formation for the main body on the line of march?

5. If possible in bush warfare, what should a column do with its transport before coming into action ?

6. What means should be adopted to afford a column sufficient warning to enable it to pack its transport safely before coming into action ?

7. Where should the guns be on the march ?

8. How strong should the baggage guard be ?

ANSWERS.

1. As soon as it is light, up to mid-day, and then halting for about three hours to enable the men to cook a meal and the animals to graze. The afternoon march should not be more than two to two-and-a-half hours' duration.

2. In time to make defensive and other preparations for the night before darkness sets in.

3. 100 yards, provided the country is not dense.

4. An elastic square.

5. Park it and form a zareba round it.

6. Bold scouting and an intelligent use of friendly natives will usually afford the column sufficient warning.

7. Near the head of the main body.

8. Sufficiently strong to hold its own in case of any temporary separation from the remainder of the force.

151.—The Advanced Guard.**QUESTIONS.**

1. How strong should the advanced guard be in bush warfare?
2. When should the advanced guard move forward?
3. Should the advanced guard be preceded by scouts?
4. What comes between the scouts and the main body of the van guard?
5. How do scouts act as soon as they observe anything suspicious?
6. When may scouts fire; and when a scout has fired, what should he at once report?
7. What should be done before villages, open spaces, streams, nullahs, or knolls are crossed or approached?
8. When piquets are placed along the route in jungle, what should all ranks be informed of, and to avoid accidents, what extra precaution should be taken by the piquets?
9. Whose duty is it to see that all paths leading off the line of advance are carefully closed, and how can this be done?
10. Where an important turning exists, what may be done?
11. After darkness has set in, what is the only method of closing paths not to be used?

ANSWERS.

1. Strong enough to brush aside minor opposition and to hold its own till supported.

2. It depends on the character of the enemy, but in any event the advanced guard must be ready for action while camp is being broken, and the whole circuit of the camp should be patrolled to give warning of any enemy collecting in its immediate neighbourhood.

3. Yes, and even in the densest bush they should not be less than 80 yards on either side of the path.

4. The point, the remainder of the van guard follows.

5. Remain perfectly still and call up their comrades by whistle.

6. If the enemy offers a good mark. When a scout has fired, he should at once report what he has fired at.

7. They should be thoroughly examined.

8. All ranks should be informed of their exact position. To avoid accidents, one or two men should be placed on a path opposite the spot and warn passing troops.

9. It is the duty of the advanced guard. This can be done by blocking up the openings of paths; trees may be blazed.

10. Two men may be left on the path.

11. Leaving men on the path.

152.—Flankers.**QUESTIONS.**

1. Should flankers always be thrown out to protect the column ?
2. Why do savages who adopt offensive tactics usually make the baggage their objective ?
3. If attacked on a flank, what should the advanced guard do ?

ANSWERS.

1. Yes, at varying distances along the route.
2. Partly in the hope of loot, but also because they know that this is, as it were, the defensive, as opposed to the offensive, portion of the force.
3. Halt and throw out extra flankers or piquets.

153.—The Rear Guard.**QUESTIONS.**

1. How strong must the rear guard be ?
2. Why do many savage races make a point of attacking the rear guard ?
3. What is often the best way to stop attacks being made on the rear guard ?
4. When does the rear guard for the day relieve the outposts ?
5. Should piquets and sentries round camp be withdrawn before the camp is clear ?

6. What is one of the most important duties of the rear guard ?

ANSWERS.

1. Strong enough to act independently or to assist the baggage guard at any time.

2. Because they think themselves safe from attack in so doing.

3. To lay an ambuscade.

4. Just before daybreak.

5. No, they should be doubled.

6. The covering of the movement out of camp.

154.—Protection when at Rest.

QUESTIONS.

1. Is it necessary to adopt special systems of outposts in bush warfare ?

2. On what system should camps be formed ?

3. What should be done at sunset in order to stop a sudden rush of the enemy ?

4. Where should the troops be placed ?

5. Where should piquets be told off to ?

6. How should camp followers be instructed as to what they have to do in case of attack ?

7. What should always be provided immediately behind the firing lines all round the perimeter.

8. By day, where should piquets be posted ?

9. Are piquets withdrawn at night ?
10. If for any special reason a piquet is left out at night, what precautions must be taken ?
11. Should a piquet which is posted outside the camp at night fall back in case of attack ?
12. How should the guns be prepared to act ?
13. Where should machine guns be placed ?
14. Mention a good way to stop all attempts at night attacks.

ANSWERS.

1. Yes, they will vary according to the nature of the country and the enemy, being generally dictated by common sense. Extreme vigilance by night is of the greatest importance.
2. On the perimeter system ; well guarded by obstacles and a liberal use of barbed wire.
3. All paths in the vicinity of the camp should be blocked by obstacles, which should be removed next morning. One or two strands of barbed wire run round the camp through the brushwood and firmly fixed about two feet from the ground, will usually stop a savage rush.
4. On the perimeter.
5. To special points on the perimeter.
6. They should be thoroughly drilled in what they have to do.
7. A clear space should be left to facilitate

communication and control in the event of attack.

8. Some way out ; watching paths, open clearings and nullahs leading to camp.

9. Yes, as a general rule.

10. It should be made safe from fire from the camp, and also from surprise.

11. In no case should it fall back on camp during the attack.

12. They should always be ready to use star shell and case, and must be prepared to move at once to any part of the perimeter.

13. So as to enfilade the front.

14. Star shells are the dread of savages, and if supplemented by some form of small portable searchlight will generally stop all attempts at night attack.

155.—Protection in Camp and Bivouac.

QUESTIONS.

1. Should troops be placed in camp on the same system daily ? if so, describe the manner of placing them.

2. To what extent should fires in close bivouac be limited ?

3. In countries where there is thorn bush or long grass, what precautions should be taken against fire during the dry season ?

4. How should the baggage be arranged ?

5. When should the baggage guards be distributed ?

6. Where animals are used as transport, why is it necessary to form a zareba round them ?

ANSWERS.

1. Yes, the advanced guard always forming the front face and the rear guard the rear face ; men and followers soon learn to move into their proper places immediately they reach the bivouac.

2. They should be limited to actual requirements and placed as far as possible to leeward.

3. No fires should be lighted save on properly cleared spaces set apart for the purpose.

4. So as to avoid confusion in loading at dawn.

5. Before a start is made.

6. It is necessary, not only as a precaution against the enemy, but to prevent them being stampeded or straying.

156.—Convoy Camps.

QUESTIONS.

1. To what extent are convoy camps sometimes advantageous against savages ?

2. Other considerations being favourable, what is the best formation for a convoy camp ?

3. How should the poles and shafts face ?

4. If wagons, arranged axle to axle, do not afford sufficient area for the animals, how may they be placed ?

5. What must always be left on each face ?

6. If rapidity of forming the camp is an object, how may the wagons be drawn up ?

7. Where the site is favourable and the convoy and escort large, what may be done with advantage ?

8. When the escort is small and the convoy large, what may be done with the cattle, and how should the escort be distributed ?

9. With pack transport how may the loads of animals be used ?

ANSWERS.

1. With a view to utilizing wagons or the loads of pack animals as a means of defence.

2. That of a square, the wagons being arranged axle to axle as closely as possible.

3. Except on the rear face, poles and shafts should face outwards, to facilitate driving off next morning.

4. End on, the poles or shafts of each being secured under the body of the one in its front.

5. Openings must be left on each face by drawing forward or backward one or more wagons, which, in case of attack, can at once be run into place.

6. In either a triangular or a diamond form.
7. Two convoy camps may be formed, care being taken to avoid risk of their firing into each other in the event of a night attack.
8. A cattle camp may be formed with two small camps at opposite corners of the cattle camp for the escort.
9. To form a defensive perimeter, being supplemented by abattis, sangars, or trenches.

157.—Convoys.

QUESTIONS.

1. Who commands both the transport and its escort with a convoy?
2. How should the commander co-operate, with the senior transport officer?
3. What are the three systems called on which convoys may be worked? Describe the working of each system.
4. When is either convoy system usually adopted?
5. What does the success of an attack upon a convoy usually depend upon?
6. If convoys move frequently along a line of communication, how should the route be piqueted?
7. Should it be necessary to send a convoy along a route which cannot be protected by

piquets and posts, and is liable to attack, what must be provided?

8. In civilised warfare, how should the escort be distributed?

9. What is the special business of the commander of a convoy?

10. What is considered the most important thing to observe on convoy duty?

11. Should anything ever be done by its commander to provoke an attack on a convoy?

12. If fighting is inevitable, how should the enemy be engaged?

13. Why should the escort be strong in mounted men or cyclists?

14. If the enemy is near, what should be enforced in the convoy itself?

15. If attacked, should a convoy be halted and parked?

16. If the attitude of the drivers is doubtful, what must be done to prevent their deserting in the event of an attack?

17. Should the whole or part of a convoy be in danger of falling into the enemy's hands, what should be done?

18. If the convoy cannot be destroyed, what is the least that should be done?

ANSWERS.

1. The senior combatant officer.

2. He will consult the senior transport officer on all matters which affect the welfare and convenience of the transport, will avoid all interference with his technical functions, and will give effect to his wishes unless, by so doing, the safety of the convoy would be endangered.

3. (i) Through system.

(ii) Staging system.

(iii) Meeting system.

The Through convoy system consists in the same animals and vehicles being employed from the start of the convoy until its arrival at its destination.

The Staging system consists in the division of the road into stages, the same section of transport working over the same ground, proceeding laden and returning empty.

The Meeting system is that by which two sections, one laden and the other unladen, meet daily at a fixed point between two stages, when loads are transferred or vehicles exchanged, each section returning to its respective stage.

4. The Through convoy system is generally adopted in front of the advanced depôt, and the Staging or Meeting systems on the lines of communication.

5. Upon the defeat of the protecting troops.

6. Daily by troops sent out from the posts on the line.

7. A special escort must be provided.

8. It should not be distributed along the convoy, but after small advanced and rear guards have been provided for and sufficient men have been posted along it to ensure order and easy communication, the main portion of the escort should move with the usual precautions and in a handy formation on that flank of the convoy from which attack is anticipated.

9. To conduct the convoy safely to its destination.

10. Secrecy is the most important.

11. Under no circumstances should anything be done to provoke an attack.

12. As far from the convoy as possible.

13. Because early information about the enemy and the roads ahead is most important.

14. Silence.

15. A convoy should not be halted and parked except as a last resource.

16. Measures must be taken to prevent their deserting.

17. It should either be destroyed or rendered unserviceable.

18. The transport animals should be either carried off or killed.

CHAPTER XI.

AMMUNITION SUPPLY.

158.—General Principles.

QUESTIONS.

1. How far in advance are the administrative services responsible for ammunition ?
2. The reserves of ammunition with the fighting troops are divided into three lines, what are they ?
3. Where do commanders of divisional ammunition columns demand the ammunition required to replenish their columns from ?
4. Where is the ammunition then sent to ?
5. Where will the headquarters of divisional ammunition columns usually be ?
6. Are indents on ammunition columns necessary ?
7. How are receipts for ammunition issued prepared, and who signs them ?
8. Who keeps the account of rounds fired by any unit during an action ?

9. Is the supply from ammunition columns restricted to the troops of their own division or brigade, etc. ?

ANSWERS.

1. They deliver ammunition at certain points beyond the advanced base, called refilling points, where it is taken over by the fighting troops.
2. (a) Divisional ammunition column reserves.
(b) Artillery brigade ammunition column reserves.
(c) Regimental reserves.
3. From the nearest ordnance depôts.
4. To the refilling points, the position of which, usually one day's march in rear of the main bodies, is fixed by army headquarters, and notified to all concerned.
5. At refilling points, whence sections will be sent forward to get in touch with artillery brigade ammunition columns.
6. They are not necessary.
7. They are prepared by the officer handing over the ammunition for the number of full wagons or carts issued from the column, and will be signed by the officer receiving them.
8. Such accounts must be kept under the orders of the commander of the unit.
9. Not necessarily ; any troops are to receive

ammunition on demand, during an action, from any column which may be at hand.

159.—Divisional Ammunition Column.

QUESTIONS.

1. What does the divisional ammunition column form part of, and what does it consist of?
2. Are horse artillery or mounted brigades restricted to any particular divisional ammunition column?
3. During an action, where will sections of the divisional ammunition column be sent?
4. Who fixes the position of these points?
5. How far will the points fixed upon normally be in rear of the brigade ammunition columns?
6. To whom will the officer in charge of the sections sent forward notify his arrival and position?
7. In what vehicles is ammunition sent forward to the brigade ammunition columns conveyed, and where are empty vehicles sent back to?

ANSWERS.

1. It forms part of the divisional artillery; it consists of four sections. The first three sections carry small-arm and 18-pr. ammunition

to replenish the three field artillery brigade ammunition columns of the division. The fourth section carries a reserve for the howitzer brigade, and heavy battery ammunition columns.

2. No, they fill up from the nearest.

3. They will be sent on to form reserves at convenient points off the road.

4. The divisional commanders, if necessary, under instructions from army headquarters.

5. They will normally be from one to two miles in rear of the brigade ammunition columns, but this will depend on the conditions under which battle has been accepted.

6. To the divisional artillery commander and to the brigade ammunition column commanders.

7. In vehicles belonging to the divisional columns. Empty vehicles are sent back to the refilling points.

160.—Brigade Ammunition Columns.

QUESTIONS.

1. What do brigade ammunition columns form part of?

2. What does a field artillery brigade ammunition column normally provide ammunition for?

3. What does a horse artillery brigade ammunition column provide ammunition for?

4. Into how many equal sections is a horse

artillery brigade ammunition column divisible, and with what object ?

5. How are the units of a mounted brigade provided with ammunition ?

6. By whom is the position of brigade ammunition columns during a battle normally regulated ?

7. On arriving at the position allotted to him, what will a brigade ammunition column commander at once place himself in communication with ?

8. To whom will he send orderlies, and with what object ?

9. On receipt of a message that ammunition is wanted, what will the brigade ammunition column commander do ?

10. How does the officer sent forward in charge of the ammunition wanted act ?

11. On arrival at its destination, how is the ammunition dealt with ?

ANSWERS.

1. An artillery brigade.

2. For the batteries of its own brigade, for one of the infantry brigades of the division, and for a proportion of the divisional troops.

3. For the batteries of its own artillery brigade, for two brigades of cavalry, and for a portion of the cavalry divisional troops.

4. Into two, each carrying ammunition for a cavalry brigade and one battery, to meet occasions when it becomes necessary to split the cavalry division temporarily into self-contained cavalry brigades.

5. By a mounted brigade ammunition column.

6. By artillery and mounted brigade commanders in accordance with the plans of army and divisional commanders respectively.

7. With the units he has to supply.

8. To the commander of infantry brigade ammunition reserves and each of the commanders of battery wagon lines. The orderlies thus provided are to be used only in connection with ammunition supply to enable those commanders to notify their requirements to him.

9. Send forward under an officer the number of wagons or carts demanded.

10. Guided by the orderly who has brought the message, he leads the wagons or carts to the battery wagon line or infantry brigade ammunition reserve, as the case may be.

11. The ammunition is transferred from the full to the empty vehicles, and the former, when emptied, return to the brigade ammunition column and are refilled from the general service wagons.



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